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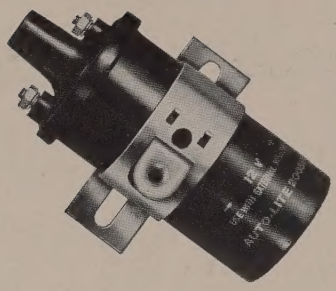

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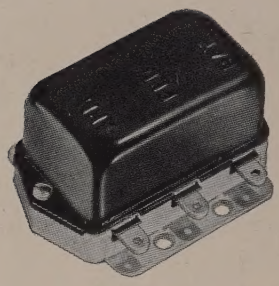

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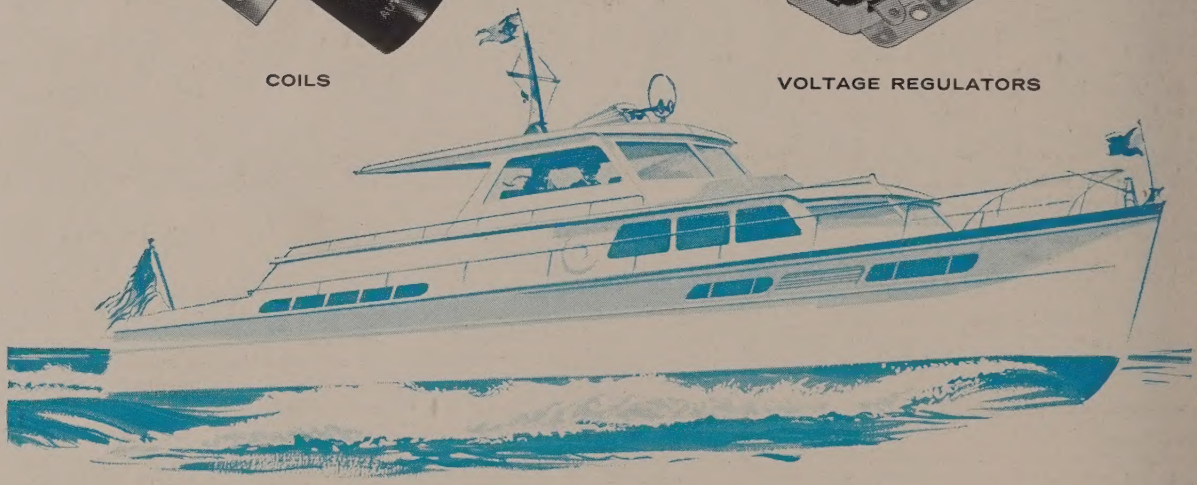

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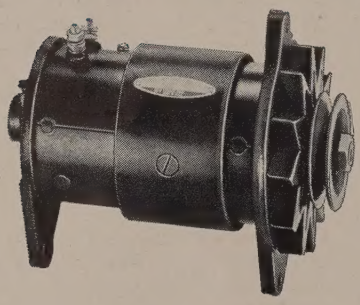

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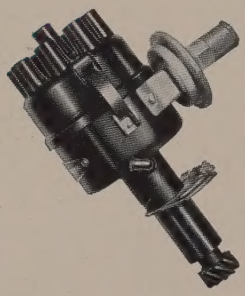
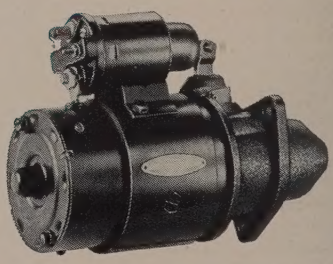


STARTING MOTORS



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Our Fifty-Eighth Year — APRIL 1960 Vol. 58 No. 5

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The Geneva Conference — Will it Compromise or Collapse?

• Development of the national positions at the Geneva Conference on the Law of the Sea, as they have been disclosed openly in plenary sessions, produced no substantial surprises; but they did make it fairly plain that the conference would have to compromise or founder in a sea of stubborn disagreement.

The Soviet-led group favoring a 12-mile limit marshalled substantial numerical strength, with the South American and African countries joining with the Soviet bloc.

The doctrine of the narrow territorial sea, favored fundamentally by the United States, Great Britain and Japan, was defended, but not made the basis of a last-ditch fight to time of writing.

The 6 + 6 proposal advanced by Canada had substantial support, and an excellent strategic position as a basis for compromise. (The United States had ingenuously indicated prior to the conference that it would adhere to the 6 + 6 pattern, *if* historic rights of fishery were recognized in the outer 6.)

As the conference progressed this "historic rights" position became the official stand of the United States, with Chief Delegate Arthur H. Dean modifying it in two regards, each designed to make it more acceptable to Canada.

These modifications were: (1) historic rights would be established only for foreign vessels which had operated off a coastal nation between the six and 12-mile lines regularly between Jan. 1, 1953, and Jan. 1, 1958; (2) the annual catch of these vessels would be limited to their average annual catch in such waters during that period.

This would appear to put the United States' contention for historic rights on the basis of individual fishing vessels, and not of national fleets.

Congressman Thor C. Tollefson of Washington joined the United States delegation late in March as a representative of the House Committee of Merchant Marine and Fisheries.

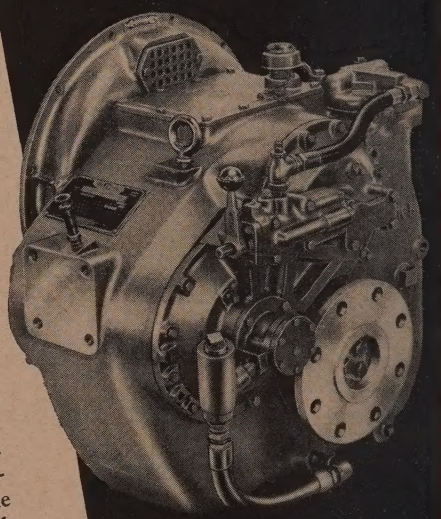
At presstime there seemed still to be a possibility that Senator Warren G. Magnuson of Washington, chairman of the Senate Committee on Interstate and Foreign Commerce, would attend later; although the senator reported at the time that he expected duties in Washington would require his presence there throughout the period of the Geneva conference.

Dr. M. B. Schaefer, director of research for the Inter-American Tuna Commission, was sent to Geneva as an observer on behalf of the commission, which however has taken no position on the controversial subjects before the conference.

The Cover Picture

• Alaska Senator Irene Ryan, chairman of the state Senate's Committee on Natural Resources, presides at a joint House-Senate Committee meeting in Juneau with the American Section of the International North Pacific Fisheries Commission. Others, diagonally from the left foreground: Robert Kallenberg, Dillingham, Alaska, U. S. Section Advisory Committee member; Alaska State Representative W. O. Smith, Ketchikan; Alaska Senator A. A. Owen, Uganik Bay, also an Advisory Committee member; Commissioner Milton E. Brooding, San Francisco, section chairman; Edward W. Allen, Seattle; and Arnie J. Suomela, Washington, D.C., American commissioners.

Checklist for Marine Gear Buyers



Manufacturer's reputation and experience

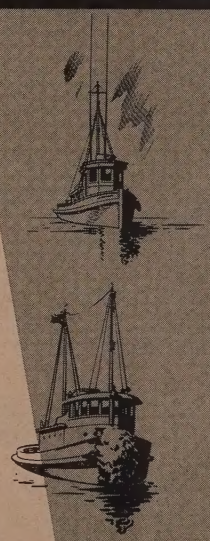
Twin Disc has built more than 100,000 marine gears since the first one came off the production line in 1933. There's no substitute for this kind of experience, a fact appreciated by boat owners and operators who have made Twin Disc Marine Gears the world's leading sellers in their class (40 to 460 horsepower). What's more, Twin Disc has the largest and best-equipped engineering and production facilities in the industry.

Performance-proven design features

Many marine gear design improvements have originated on Twin Disc drawing boards . . . features such as smooth-operating finger-tip control on a hydraulic gear; rubber block drive to compensate for misalignment; oil-cooled clutches; double sealed countershaft flanges; straddle-mounted pinions to assure complete gear face contact; gear teeth that are not only carburized and hardened, but ground as well. Working behind your engine, these Twin Disc gear features add up to long life and the most reliable performance you can buy.

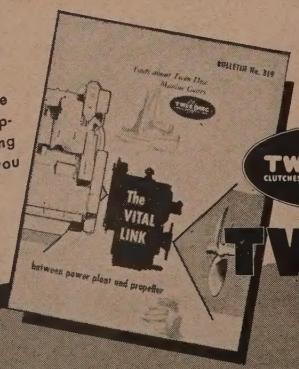
Service availability

Great pains are taken in the design of a Twin Disc Marine Gear to assure maximum "in the boat" serviceability. Clutches on all models, for example, can be disassembled without pulling the gear from the engine or disturbing alignment. Parts and service for your Twin Disc Marine Gear are close at hand no matter where your boat is working. In the U. S. alone, there are four factory branches, 76 parts stations and hundreds of marine engine dealers ready to keep your marine gear downtime to an absolute minimum.



Send for this New Bulletin

Twin Disc Marine Gear Bulletin 319 is just off the press. It presents overwhelming evidence to support the claim that Twin Disc is top choice among marine gears regardless of what yardstick you use. A free copy is yours for the asking.



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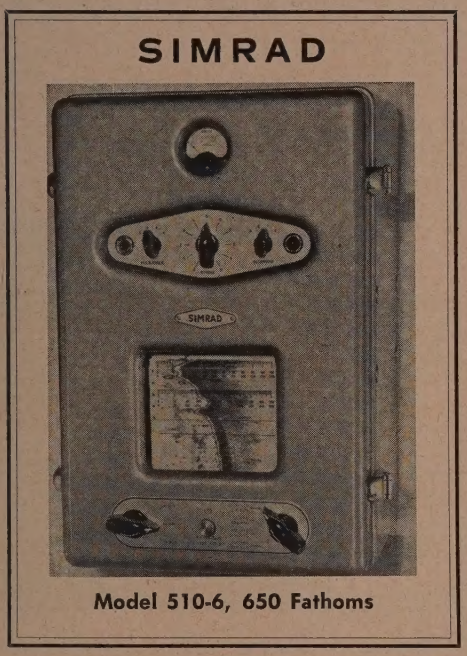

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Reliability and performance have given Caterpillar Diesels a reputation second to none among owners and operators of fishing vessels. Such advantages as individual fuel injection capsules that can be replaced in minutes and the discard thrown overboard at a cost of less than $10, emphasize the mechanical conveniences designed into Caterpillar Marine Engines. The large inspection doors permit checking of piston assemblies, crankshaft and bearings, without dropping pan. Everything except the crankshaft can be removed through the doors, another Caterpillar servicing convenience.

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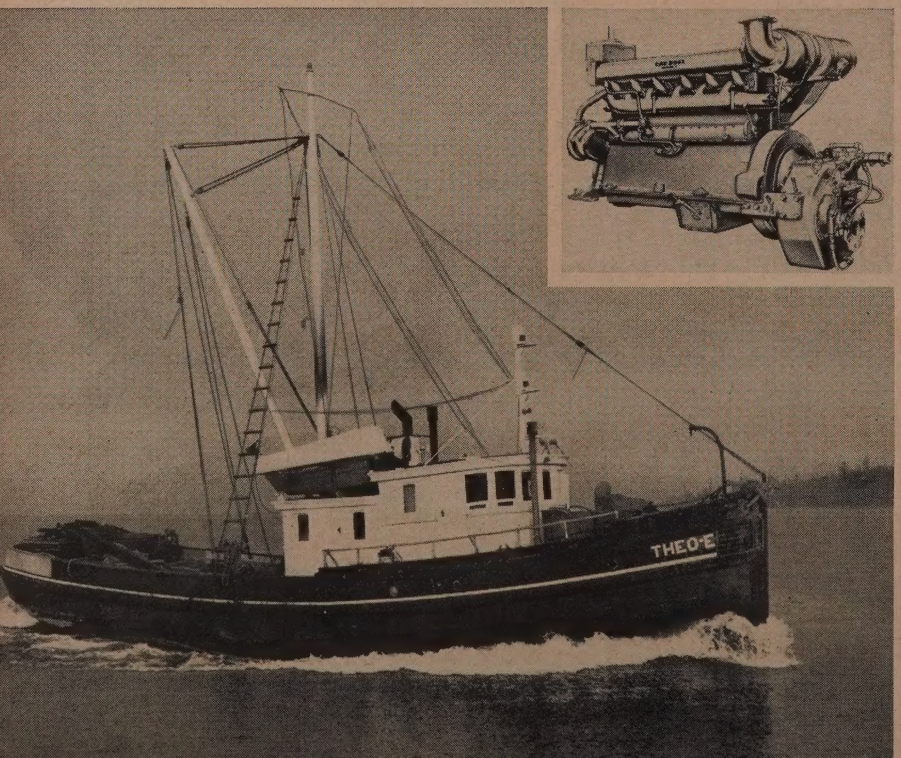
Owner Norman Holm is well pleased with his Caterpillar Diesel: "The D342 Turbocharged Engine is the best available for my purpose which involves continuous heavy-duty work. With Caterpillar Engines, there is a minimum of maintenance and adjustment. It is the ideal engine in cases where the owner does not participate in the running of the boat."



10 TIMES THE RANGE WITH CATERPILLAR DIESELS

Before installing the Caterpillar D342 (inset), the "Theo E" was used in a 40-mile range. Now, it is used in a 400-mile range. Speed was increased from 7.5 to 10 knots. The boat makes a 720-mile round trip each weekend to Portland Canal. Average load is 150,000 lbs. of iced salmon.

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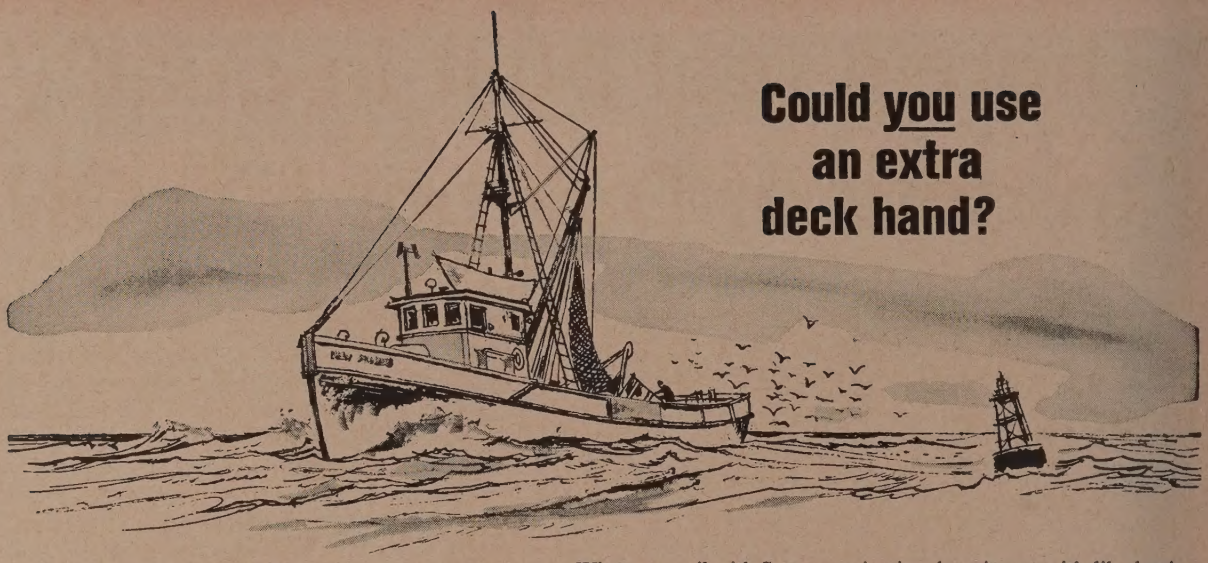

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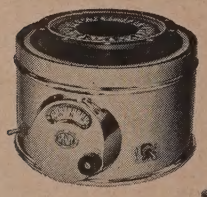
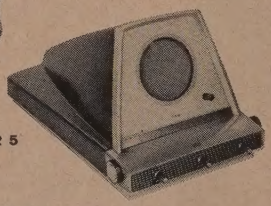


AUTOMATIC PILOT 6



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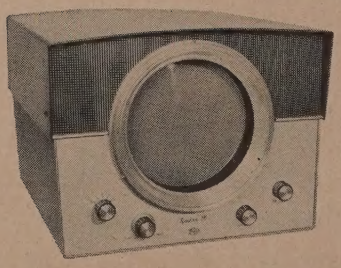
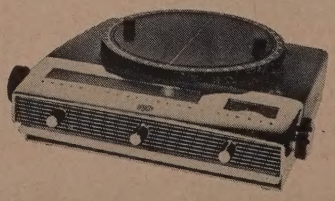


RADAR 10

RADIO DIRECTION FINDER



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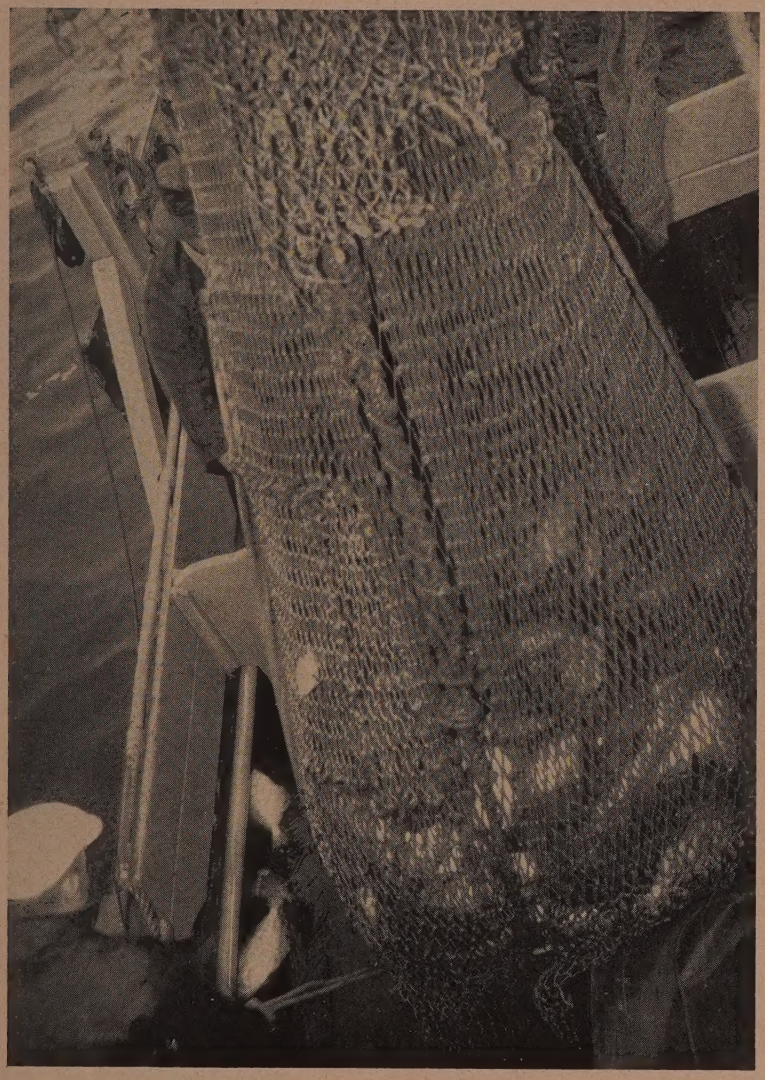

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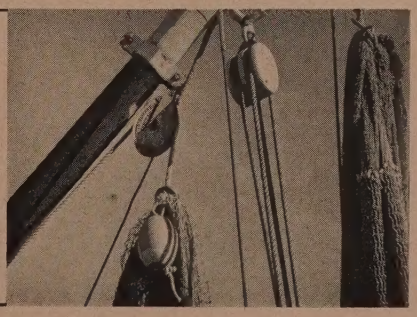

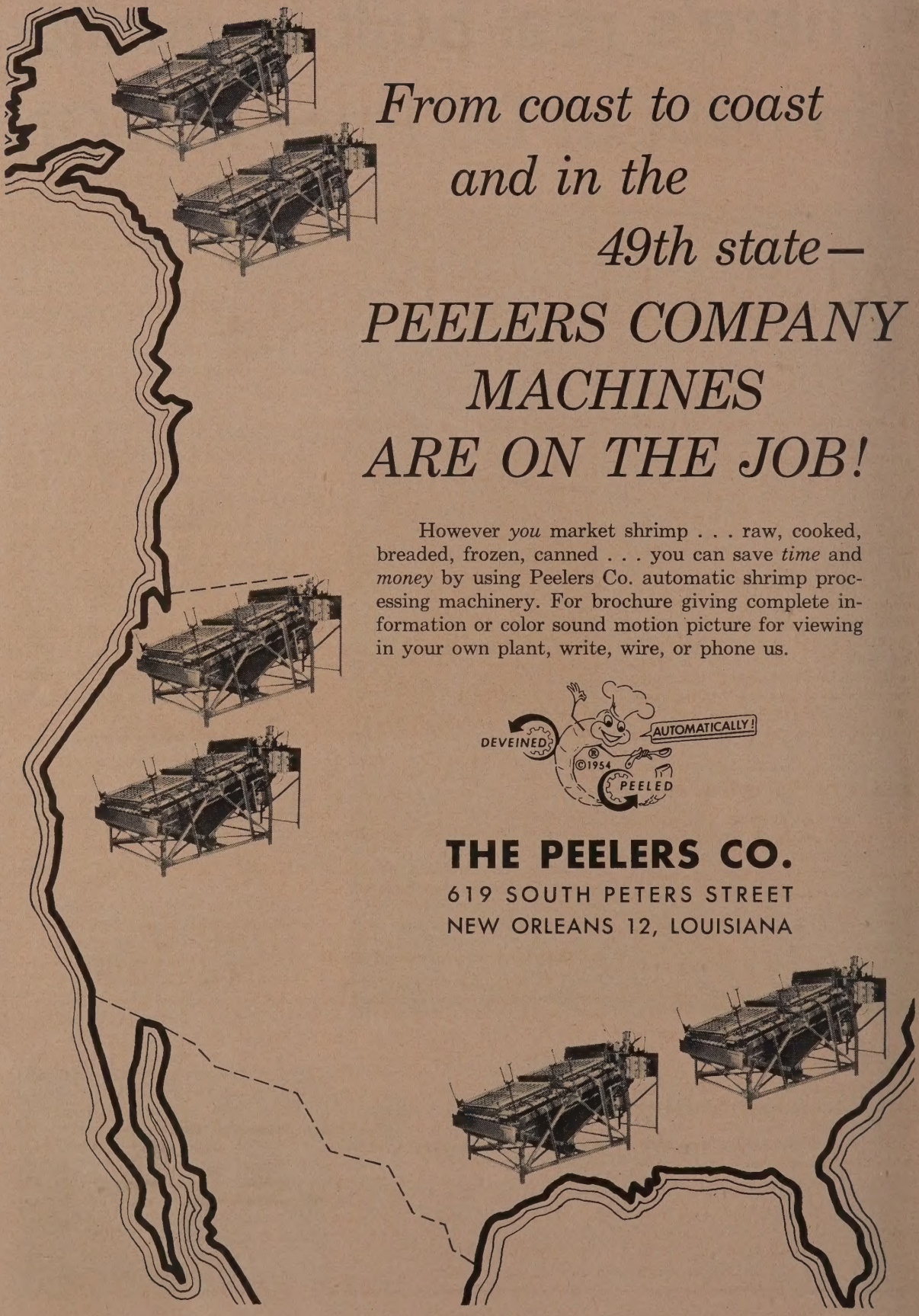

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PACIFIC FISHERMAN

April, 1960

Alaska Has a Program

● Facing up vigorously to its responsibility for the invaluable fisheries resource it acquired with statehood, Alaska has developed a 15-year rehabilitation program designed as a major expansion of the projects the state initiated immediately upon assuming control over the resource with the advent of 1960.

The 15-year program, as tentatively outlined by the Alaska Department of Fish and Game, calls for expenditure during this year of $30 million, starting with $500,000 in the first year, rising to $3 million in the fifth through the eleventh years, and then declining again to $500,000 as the expanded program closes and the state carries-on.

Attention at Juneau—Four legislative leaders listen closely to discussion of the activities of the American Section of the International North Pacific Fisheries Commission. From the left: John E. Longworth, Petersburg representative; Senator Irene E. Ryan, Anchorage; Representatives Andrew Hope, Sitka; and Bruce Kendall, Anchorage.

Alaska's Fish Rehabilitation Plan

● The 15-year program for Alaska fisheries rehabilitation, as prepared by the Department of Fish and Game, would involve two primary divisions:

1. Basic research and management investigations;
2. Salmon watershed management projects.

The first of these is outlined thus:

A. Research and Management

(*a*) *Basic research* will continue to develop, but on a considerably expanded scope necessary to provide information on the relation and limitations of environmental factors throughout the life history of the salmon and the ways in which these environmental factors may be controlled by man to increase salmon production.

(*b*) *Management investigations* projects will consist of the re-establishment of productive salmon runs in favorable lakes and streams in which the original runs have been depleted, and also in favorable lakes and streams which did not produce salmon, but which could become productive with the introduction of new runs.

B. Watershed Management Projects

(a) Control of predation and competition by scrap fish in desirable lakes and streams.

(b) Increasing the ability of fresh water spawning and rearing areas with ladders and other fish passage devices over stream barriers, and by means of stream clearance.

(c) Improving existing spawning beds by means of controlling of water flow and siltation.

(d) Construction of new beds for natural spawning which will provide the maximum of favorable conditions for the incubation of eggs and fry.

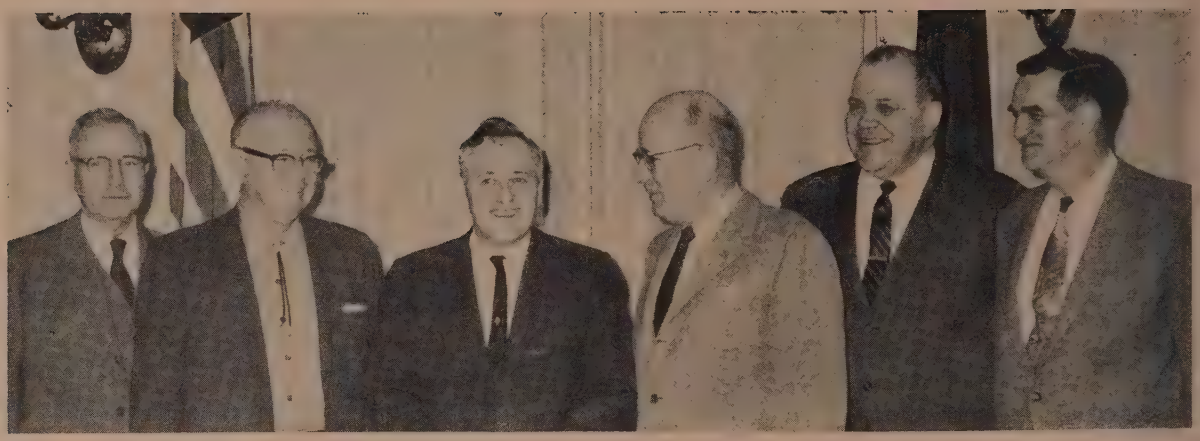
(e) Enhancement of the rearing capacities of appropriate lakes by means of controlled fertilization and enrichment of basic food supply for salmon fry.

(f) Use of salmon culture techniques such as artificial spawning and incubation of eggs and fry where appropriate to increase existing runs or establish new salmon runs."

● The Alaska Program concludes in its official statement with these paragraphs:

"Not only can the appropriation of these funds by the Congress be looked upon as a proper action by the federal government to restore a resource lost during its time of responsibility, but also as an investment which if the original salmon sustained productivity levels can be achieved will re-establish an Alaskan industry with an additional annual income of $80 million, or a capitalized worth of at least $2 billion.

"Perhaps of even greater significance, the proposed rehabilitation program will mean the re-establishment of



Commissioners Meet Governor—American Section of the International North Pacific Fisheries Commission conferred with Governor William Egan of Alaska in Juneau early in March. From the left: Commissioners Edward W. Allen, Seattle, and John H. Clawson, Anchorage; Governor Egan; Commissioners Milton E. Brooding, section chairman, San Francisco, and Arnie J. Suomela, Washington, D.C.; Alaska Senator A. A. Owen, a member of the U.S. Section Advisory Committee, who formally introduced the commissioners to the governor.

a perpetual supply of protein food of superlative quality to the rest of the nation. In view of a world with expanding human population and demands for food, this becomes of great importance."

Salmon Industry's Reaction Vigorous

● Reaction of the Alaska salmon industry to the state's 15-year rehabilitation program was vigorous and favorable from its announcement early in March, and was growing apace as this was written.

While recognizing that scientists might disagree on some details of the tentative program, the industry seemed ready to "buy" the idea generally, and to throw its full weight behind efforts to provide a federally-financed program of Alaska fisheries resource rehabilitation.

Expressions of industry opinion seemed to place basic science first, with the primary research project the key to the escapement-return relationship; and, having found it, determination of how it should be applied to provide the best possible harvest *with* the most productive possible escapement.

Resource extension seems to be recognized favorably by the industry as a secondary objective, but one whose potential is relatively small in comparison with the full and effective utilization of present opportunities through control of catch and optimum spawning escapement.

Senator Gruening Inquires

● Something of this philosophy is expressed in an anlysis of the Alaska salmon fisheries rehabilitation problem requested by Alaska's Senator Ernest Gruening. He asked Dr. William F. Royce, director of the Fisheries Research Institute of the University of Washington, and for several years assistant regional director in charge of research for the United States Bureau of Commercial Fisheries in Alaska, to undertake an analysis of the problem.

In his reply to the senator Dr. Royce writes:

"It is my view that the key problem in the management of the Alaska salmon fishery is in the accurate control of fishing to insure an adequate escapement of each race, and no more. . . .

"In Alaska in the recent years of very small packs the escapement has been grossly uneven, with the escapements to particular streams varying tremendously between similar streams, and from year to year. Some of the spawning areas have been grossly overcrowded, while others have not been fully utilized."

● In his specific recommendations, Dr. Royce says:

"What is most sorely needed for the management of the Alaska fisheries is the following:

"1. Recognition and definition of each of the major races of salmon contributing to the catch throughout Alaska.

"2. Accurate catch statistics on each major race of salmon.

"3. Accurate escapement statistics on each major race of salmon.

"4. Evidence of the relative fresh and salt water survival of each race which will provide a forecast of the size of the run to be expected.

"5. Knowledge of the number of spawners needed on the spawning ground used by each major race.

The National Responsibility

● The state of Alaska, with strong and rapidly gaining industry support, is looking to the national government to provide the funds for the 15-year expanded program.

This is justified on two main points, which may be stated thus:

1. Impaired condition of the Alaska fisheries resources generally may be traced to failure of the national government to provide adequate funds for fisheries research, protection and management during the decades in which the administration of the Alaska fisheries was in the hands of the U. S. Departments of Commerce and Interior. Responsibility for bearing a major share of the cost of rehabilitation should be accepted by the national government in seeking to compensate for inadequate appropriations during its stewardship.

2. Language of the Statehood Act declared that the fisheries of Alaska were to be transferred to the state only when it had made "adequate provision for the administration, management and conservation of said resources in the *broad national interest.*" (Emphasis supplied.) Congress, having written into the law the fact of this continuing national interest in the fisheries under state administration of them, apparently was prepared to participate with national funds in the financial support of that "administration, management and conservation . . . in the broad national interest."

"6. Knowledge of how much gear and what fishing time is needed to catch the desired number of salmon."

● Throughout his analysis Dr. Royce cites the success of the Fraser River international enterprise, which depends basically upon information such as he has outlined.

He lists eight Alaska areas in each of which he considers the management problem, and the productive potential, as comparable with the Fraser. These are: Yukon River; Bristol Bay; Alaska Peninsula; Kodiak Island; Cook Inlet; Prince William Sound, Copper River and Yakutat; Northern S. E. Alaska; Southern S. E. Alaska.

● He concludes with a warning:

"Along with this immediate problem of managing the fishery may be expected the problems of saving the fishery during the industrial development of Alaska. The high power dams that are proposed for the Copper River and the Yukon will mean the eradication of runs above them unless ways are found to pass salmon safely up and down over them. Logging may change the nature of the streams in Southeastern Alaska and Prince William Sound. Oil production and industry will constantly add to the pollution of the streams.

"It is clear that if answers are to be found to these many problems much more fisheries research is needed than the state, federal government and industry have yet provided. . . . A substantial part must be basic research on such things as behavior of salmon, productivity of cold water lakes, population dynamics and ecology of salmon streams."

Confidence Comes With Understanding

● Alaskans had full opportunity to inquire into the United States' participation in the International North Pacific Fisheries Commission when the American Section of the commission met in Juneau in March as the Alaska legislative session drew toward its close.

They made good use of the opportunity, and out of it grew a measurable wave of confidence in the handling of problems of enormous importance to Alaska.

A rapid-fire series of meetings enabled many Alaskans, Governor William Egan, Secretary of Alaska Hugh Wade, Senators, Representatives, fishermen, operators and businessmen, to know the character and extent of American research in support of its positions for continuation of abstention from fishing by the Japanese, and for adjustment of the Provisional Abstention Boundary for the better protection of the Red salmon of Bristol Bay.

They asked many questions, sharp questions, and well to the point, on many subjects, and particularly on why the fishing of herring on the high seas off Alaska was being removed from abstention; and why "maximum utilization" is so important in dealing with the problems arising from international fishing in the North Pacific.

But of that more in detail later.

● The United States Section of the International North Pacific Fisheries Commission is composed of the four Commissioners: M. E. Brooding of San Francisco, chairman; Arnie J. Suomela, Washington, D.C.; Edward W. Allen, Seattle; and John H. Clawson, Anchorage.

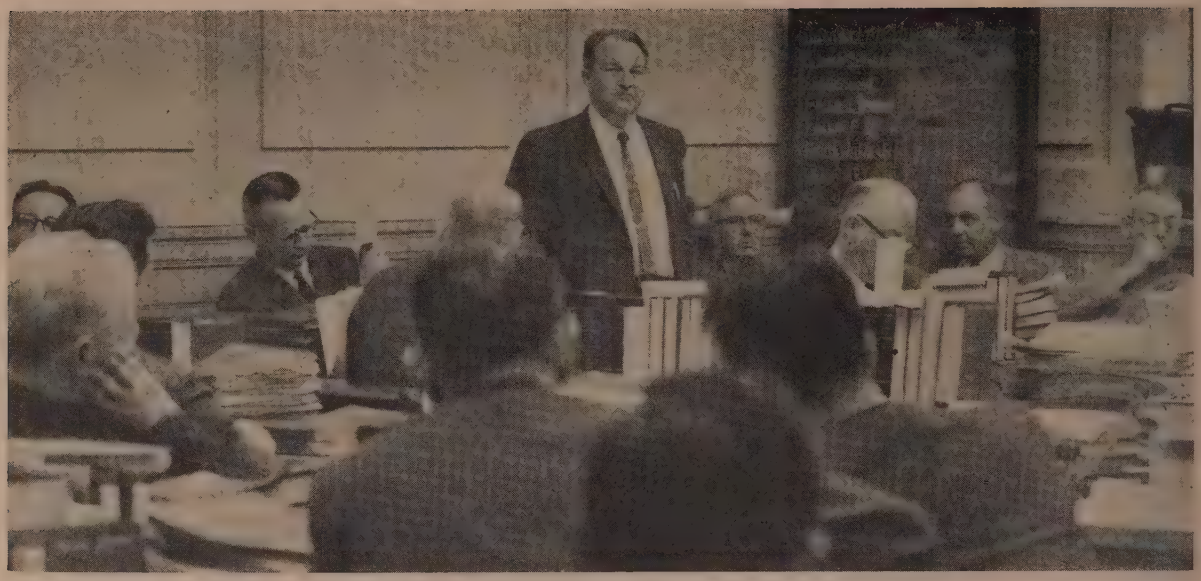
Researcher W. F. Royce, foreground, explains a point to Senator B. J. Logan, left; and Representatives Axel Johnson, Kwiguk, and Andrew Hope, Sitka.

They are supported by an advisory committee composed of 16 members, of whom six are Alaskans: C. L. Anderson, Juneau, the state's director of fisheries; Robert Kallenberg, Dillingham; John Smith, Metlakatla; Senator A. A. Owen, Uganik Bay; Peter Tanstad, Cordova; and Lowell Wakefield, Port Wakefield.

Mr. Tanstad is a newly-appointed member of the Advisory Committee, attending his first meeting; while Mr. Wakefield, a member of the committee from the Section's organization in 1954, has recently established his residence in Alaska.

Other members of the advisory committee attending the meeting were: H. E. Lokken, manager, Seattle Fishing Vessel Owners Association; T. F. Sandoz, Astoria, Ore., president, Columbia River Packers Association; W. C. Arnold, Seattle; Clarence Pautzke, Seattle, alternate for Washington Fisheries Director Milo Moore; and Walter Kirkness, Juneau, alternate for Mr. Anderson; and DeWitt Gilbert, editor of *Pacific Fisherman.*

Scientists and experts attending the meeting included William C. Herrington and Stuart Blow, Department of State; Dr. Lawrence McHugh, chief of fisheries research, U.S. Bureau of Commercial Fisheries, Washington; C. E. Atkinson, Seattle, in charge of U.S.B.C.F. North Pacific fisheries research; Fred Cleaver, deputy chief of this work; R. A. Fredin, its biomathematician; Dr. W. L. Royce, director, Fisheries Research Institute, Univer-



Department of State representative W. C. Herrington answers questions of Alaska legislators in the joint House-Senate session. Recognizable in the picture, from the left, Representative Allan L. Petersen of Kenai, (hand to cheek); R. A. Fredin, (partly obscured, with glasses); Dr. William F. Royce; Edward W. Allen, (hands behind head); John H. Clawson, (partly obscured by paper); John Gharrett and Dr. Lawrence McHugh, Bureau of Commercial Fisheries.

sity of Washington; Dr. William Smoker, fisheries research director, Alaska Department of Fisheries and members of his staff; John Gharrett, Alaska regional director, U.S.B.C.F.; Dr. George Y. Harry, research chief; Dr. Charles Di Costanza, biomathematician, and others of the U.S. regional staff.

● Meetings were held with Governor Egan; with the Natural Resources Committees of the Senate and House in joint session; before a joint open session of the House and Senate; with the industry and public, when everyone had a chance to ask questions; beside the Section's own meetings on matters concerning its budget and details of the research program.

John E. Longworth, halibut fisherman and Alaska representative from Petersburg, rises to ask a question of M. E. Brooding during the joint session of the House and Senate to hear the American Section discuss the North Pacific Treaty and its operation.

"Maximum Utilization" Clarified

● Alaskans' interest centered largely in a number of subjects all more or less concerned with "maximum utilization", one of the criteria set-up by the North Pacific treaty as essential to qualification for abstention.

The meetings afforded well-grasped opportunity for question-asking and question-answering, and thus produced an air-clearing understanding of why proof of maximum utilization of fisheries subject to abstention is essential under the international rules currently in force under the treaty.

Much interest was manifest regarding the action taken by the commission in removing from abstention herring on the high seas off the Alaska coast. The answers showed that this action was required because research studies indicated that the oceanic herring resources at present are not subject to full utilization, *could* produce more on a sustained yield basis if economic conditions permitted.

● "Maximum utilization" also was shown to be basic to the concern felt by some lest full utilization of the Bristol Bay Red salmon run of 1960 might not be possible under the proposed Alaska fishery regulations, and that an excessive escapement might subject the present abstention status of salmon to attack on the basis of under-utilization.

● Good feeling was manifest throughout the period of the meetings, and gratification at their productiveness was frequently expressed. "Old suspicions have been swept away", said one senator on this point.

Sole unhappy aspect of the meetings was the illness of C. L. Anderson, Alaska director of fisheries and game, who had much to do with arranging and planning them. Mr. Anderson suffered a heart attack a few weeks in advance of the meetings and was still confined to the hospital when they were held. He was reported to be making excellent headway toward full recovery, and is expected to be able to return to his office before the opening of the active fishing season.

While Mr. Anderson is recuperating he was being represented by Mr. Kirkness and Dr. Smoker, senior members of his staff.

Mr. Pautzke, who was attending the American Section meetings as alternate for Washington Director Moore, joins the Alaska department May 1 as assistant director under Mr. Anderson.

● Non-business feature of the period of the Section's visit to Juneau was the buffet supper annually provided by the Department of Fisheries and Game for the legislature, this time with members of the American Section honored jointly with the senators and representatives.

Permanent Boom for Tuna Seiners?

Last month the converted tuna seiner *Saratoga,* Manuel Luz managing owner, went out on the third of the month and came back on the twelfth with a full load—a ten-day trip.

Then she turned around, went out on the fifteenth and came back to port again on the twenty-third with another full load—a ten-day trip.

In other words, well within a month, the *Saratoga* caught and unloaded between 400 and 450 tons of tuna.

This is a record that may stand for a long time, yet it is almost typical of the red-hot tuna fishery now being exploited in Southern waters by the big, fast, efficient seiner fleet—largely converted clippers.

Records for the first three months of the year went tumbling down in confusion last month. The seiner fleet landed and unloaded 18,630 tons of fish in 114 trips in the first quarter of 1960. The highest previous total was 1959, last year, when the best they could do (and it was a record then) was 9268 tons in 65 trips.

That is to say, the first quarter of 1960 more than doubled the first quarter of 1959 on the statistical books.

During the week ending March 25, the seiners brought in 2160 tons of tuna.

More Fish Per Day

The Market News Service of the Bureau of Commercial Fisheries, which gathers the statistics quoted above, said that the average trip for the seiners for the first three months of 1960 was 23 days, the average load 163 tons per trip.

A substantial percentage of this record catch was being brought in by the big new converted purse seiners, formerly clippers. Market News Service figures showed that as between this year and last, the clippers and the seiners had just about traded places on the statistical tables. Last year the seiners caught 7120 tons between January 1 and March 19, while the clippers landed 16,096 tons. This year the seiners brought in 16,470 while the clippers caught 9542.

Since so much of this year's seiner catch was made by the newly converted vessels, you could almost say that the fish were being caught largely by the same boats, except that this year they are catching them in a net while last year they were using hook and line.

All in all, the trend, as shown up so sharply by the Market News statistics, indicates a revolution in tuna fishing. Whether this is a permanent trend or not, it is hard to say. But the big new seiners are chalking up a continuing record of short trips and big catches. It is quite possible that tuna fishing methods have turned a corner, and the fishery will have a new look from now on.

Prices Firm

Tuna prices were steady at what seems to be a new level of $250 per ton for Yellowfin and $210 for Skipjack, as reflected by the American Tunaboat Assn. auction prices. Mackerel prices generally were around $50 per ton ex-vessel for both Pacific and Jack, while anchovies were going at around $25 per ton.

8-Company Consolidation Agreed on for Kodiak

Consolidated operation for Kodiak Island salmon canneries during the 1960 season is expected to prove the most extensive yet undertaken in Alaska from the standpoint of number of companies involved.

The Kodiak consolidation, as it stood at presstime, called for the fish produced by eight companies to be canned in three canneries, of which two would operate only during the Pink season.

The canneries: Pacific American Fisheries' Alitak, canning talls and halves during the entire season; Kadiak Fisheries' Port Bailey, canning talls during the Pink season; King Crab, Inc., Kodiak, canning 4-lbs. during the Pink season.

The eight companies whose operations will be consolidated are: Ouzinkie Packing Co.; Kadiak Fisheries Co., two canneries; Pacific American Fisheries; San Juan Fishing & Packing Co.; Washington Fish & Oyster Co.; C.W.C. Packing Co.; King Crab, Inc.; Parks Canning Co.

Unconsolidated canning operations in the Kodiak Island area will include two Alaska Packers Association plants, that at Larsen Bay and the former Halferty cannery at Kodiak.

Southern California Receipts

	Albacore	Bluefin	Skipjack	Yellowfin	Bonita, etc.	Total
San Pedro	4,726	122	5,262	19,306	17	29,433
San Diego	1,201	...	3,118	2,373	..	6,692
Total 1960 through March 12	5,927	122	8,380	21,679	17	36,125
Total 1959	3,501	104	10,917	24,471	112	39,105
Total 1958	2,911	277	4,380	16,611	104	31,044

The Return of the Mackerel

The mackerel fishery, which has been dead on its dorsal fins for the past two years or so, was also coming back with a bang.

Market News Service reported landings of 10,659 tons of Jack Mackerel and 2219 tons of Pacific mackerel for the period from January 1 to March 21 this year, as against 647 tons and 841 tons for the same period last year.

The total landings of mackerel and anchovies for the period, 1960, were reported at 13,159 tons. Last year the figure was 1685. The difference represents an increase of very nearly 1000%.

Wakefield Acquires Interest in Aleutian

Lowell Wakefield, president of Wakefield's Deep Sea Trawlers, Inc., and of Wakefield Fisheries, Inc., recently acquired a minority stock interest in the Aleutian Cold Storage Co. in whose plant at Sand Point, Shumagin Islands, the Wakefield company conducts a crab-preparation operation, and where it also stores frozen crab meat on a custom basis.

Southern California Domestic Tuna Deliveries

Cumulative totals for 1960 through March 12, in tons, as reported by U.S. Market News Service

	Albacore	Bluefin	Skipjack	Yellowfin	Bonita, etc.	Total
Clippers and Albacore Fleet		...	4,760	4,520	...	9,280
Purse Seiners		110	865	14,680	17	15,655
Total 1960 through March 12		110	5,625	19,200	17	24,952
Total 1959		104	8,844	14,061	112	23,121
Total 1958	4	272	10,146	11,549	114	22,085

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Frozen Fish Men Peek at Quality in the Package

● Tuning-up for the National Fisheries Institute convention, which will be held in Miami Beach, Florida, the first four days in May, Pacific Coast packaged frozen fish producers participated in a pair of March judging programs on their products, putting the accent on quality determination, and looking toward broader application of national standards.

In San Francisco March 15 and Seattle March 23, the industry took a look at itself, its products and its future.

Cooperating in staging the Pacific Northwest Fishery Products Judging Program were the National Fisheries Institute through its Region V Quality Committee and its national Technology Division; the Northwest Fisheries Association; and the U. S. Bureau of Commercial Fisheries. The event was held in the Technological Laboratory of the College of Fisheries of the University of Washington.

Heading the committee were E. A. Ruthford, San Juan Fishing & Packing Co., chairman NFI National Quality Committee; and William B. Hall, Booth Fisheries Corporation, chairman of NFI Region V Quality Committee; W. C. Eardley Jr., Whiz-Eardley Fisheries; and Russell Boshell, San Juan Fishing & Packing Co.

● Products to be judged consisted of samples drawn from goods offered for sale throughout the United States. They were drawn in triplicate from the same offering. For the judging, one package was examined frozen, one in thawed condition, and one cooked by the standard test method.

Categories examined at Seattle were: salmon steaks, halibut steaks, ocean perch fillets, sole fillets, cod fillets, King crab meat in consumer packages.

Out of the examination came one clear conclusion:

Top quality reaching the consumer was packed in vacuum or inert gas in impervious film.

Observers whose recollections went back over the four previous judgings were inclined to feel that the 1960 examination showed progress in quality, but that several persistent flaws were still apparent.

Among them the most notable was the old, old problem of the length of time and conditions of storage to which the product is subjected from the time it leaves the packer's hands until it reaches those of the consumer.

Oxidation seemed to have taken a long lead over Dehydration as Problem No. 1. Ranking among the lesser problems were: collarbones, pelvic girdles, and mixed species.

● This should not be taken to indicate that there were no first class packages examined. There were, and A-ratings were common. One package of King crab meat, by the way, received a *perfect* score.

Progress Toward Standards On Ocean Perch and Sole

● Federal technologists working on the development of quality standards for ocean perch fillets and fillets of sole told the Pacific Northwest operators something of what to expect and when to expect it; as well as some of the problems in drawing standards which would be acceptable to the producers of both coasts, while providing a worthwhile contribution in convincing the consumer that packaged fish can be trusted.

Wayne Tretsven of the U. S. Bureau of Commercial Fisheries, assigned to the problem of Ocean Perch Standards, emphasized that the primary problems stemmed from the fact that the standard would apply to both Atlantic and Pacific ocean perch, with their wide difference in average sizes.

Package labeling as to size of contained fillets—large, medium or small —will probably be recommended, although labeling falls outside the scope of quality standards.

● Max Patashnik, U. S. technologist assigned to the problem of developing standards for fillet of sole and flounder, indicated that standards could hardly be promulgated before the end of the current year.

Principal problem encountered thus far has been that of nomenclature and identity of the species acceptable under the designation "sole."

At present it appears probable that Petrale, English and Dover sole will be accepted as qualifying for the term "sole" without further identification; and that Rex, Rock and Sand sole will not be included in the standards, although of course acceptable under their usual trade names.

Fishermen Evidence Interest

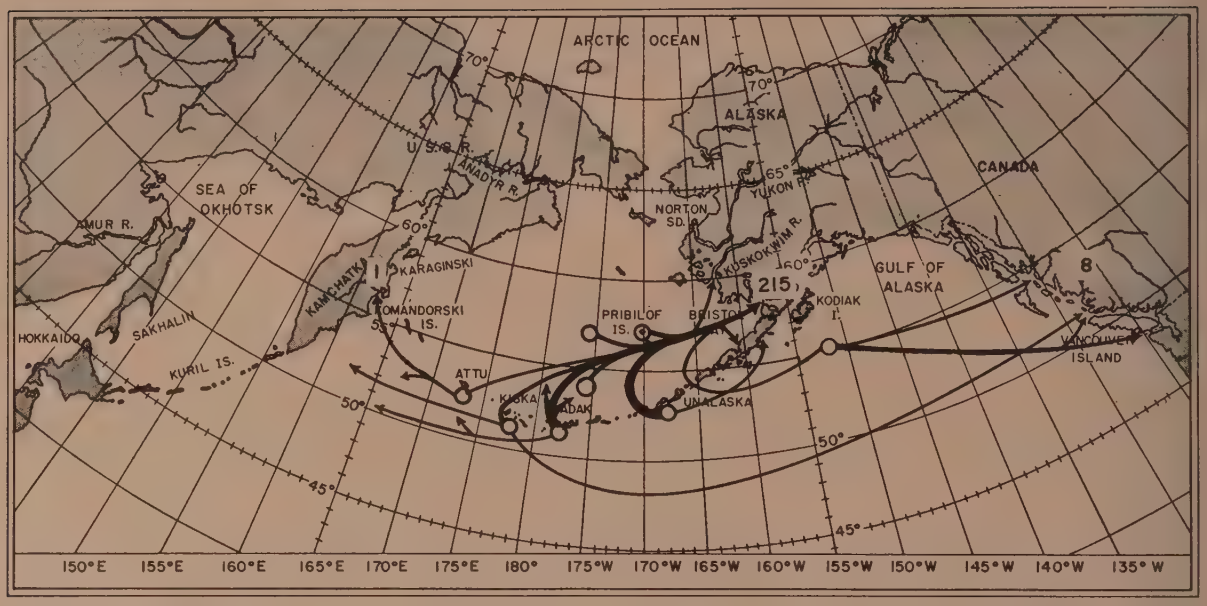
● One of the significant aspects of the Fisheries Products Judging Program was the interest evidenced by vessel owners active in producing fish for the packages displayed.

Thus, there were groups of interested fishermen from the halibut, trawl and troll fisheries present for the examination, making the most of the opportunity of seeing how the fish they catch reach the consumer, and of appraising the effect of the several steps of production and distribution on the food as it eventually comes to the kitchen.

● A notable collection of consumer packages of ready-to-heat, ready-to-eat, fish products, and of various items of convenience foods, shaped cutlets or slices, "bits," "buds" and even buttered frozen fish, commanded much interest at the judging.

First Tuna Delivered To Union Cooperative

First tuna for the new canning operation at the Union Fishermen's Cooperative Packing Co. plant at Astoria was delivered in March. Part of 200 tons of Japanese frozen tuna delivered by the Norwegian vessel *Kingsville* went to the Union Fishermen's plant, as did 170 tons of Yellowfin from South American waters, delivered by the Colombian vessel *Cuidad de Manizales.*



Generalized distribution of tag returns from Red salmon tagged on the high seas by the Fisheries Research Institute from 1956 to 1959. Circles represent tagging areas and arrows recovery locations.

1960 Salmon Research Conference Keynote in Five Words

FRI Stands Firm on Forecast

● Standing firm on their forecast of big things for Bristol Bay in 1960, scientists of the Fisheries Research Institute of the University of Washington in mid-March renewed for the salmon industry the prediction that "more than 30 million" Red salmon will return to Bristol Bay this season.

The six months which have passed since this figure was first ventured served only to firm-up the conviction with which Dr. William F. Royce, F.R.I. director re-affirmed the forecast.

He was speaking to members of the Pacific salmon industry at the annual F.R.I. Research Conference in Seattle March 15.

Summing up after discussions of phases of the Institute's studies by Dr. Robert L. Burgner and Dr. Ole A. Mathisen, Dr. Royce emphasized that forecasts are indispensable alike to fishery operators and administrators.

Three lines of evidence support the belief that the Naknek-Kvichak-Alagmak run of 1960 will be exceptional. As outlined by Dr. Royce, they are:

1. *Parent escapement in* 1956. This was very large, approximating 11.99 million adults.

2. *Seaward smolt migration of* 1958. Index here, based on fyke net catches and standard enumerating procedure, was 1,913, compared with an index of 25 in 1957; 64 in 1956; and 214 in 1955.

3. *High seas catch of immature Red salmon in* 1959. The numbers of three-year-old Reds taken on the feeding grounds of the far Aleutians in 1959 was very large. These fish can be expected to return to their parent streams in 1960. An accompanying graph shows the correlated relationship.

● Dr. Royce pointed to the special significance of this third point, in that it refers to salmon which are well grown, which have survived the perils of the lake phase of their lives; which have passed through the crisis of transition from fresh water to salt; which have attained size where they presumably are better able to avoid predators, both from being larger and stronger and more widely scattered in the sea; and which have only one more year of growth and hazard.

Collection and use of the third point data requires costly and difficult research, involving knowledge of the salmon's ocean migration routes; and the means and methods by which they may be sampled adequately in the enormous masses of the sea.

Reviewing these points, Dr. Royce stood firm in his position: "On these last data, plus our knowledge of the great smolt migration of 1958, we reaffirm our expectation of a run of more than 30 million Bristol Bay Reds in 1960." He did not say so, but presumably this forecast would include the number of fish which the Japanese high seas fleet may be expected to take from the Reds of Alaskan origin maturing this year.

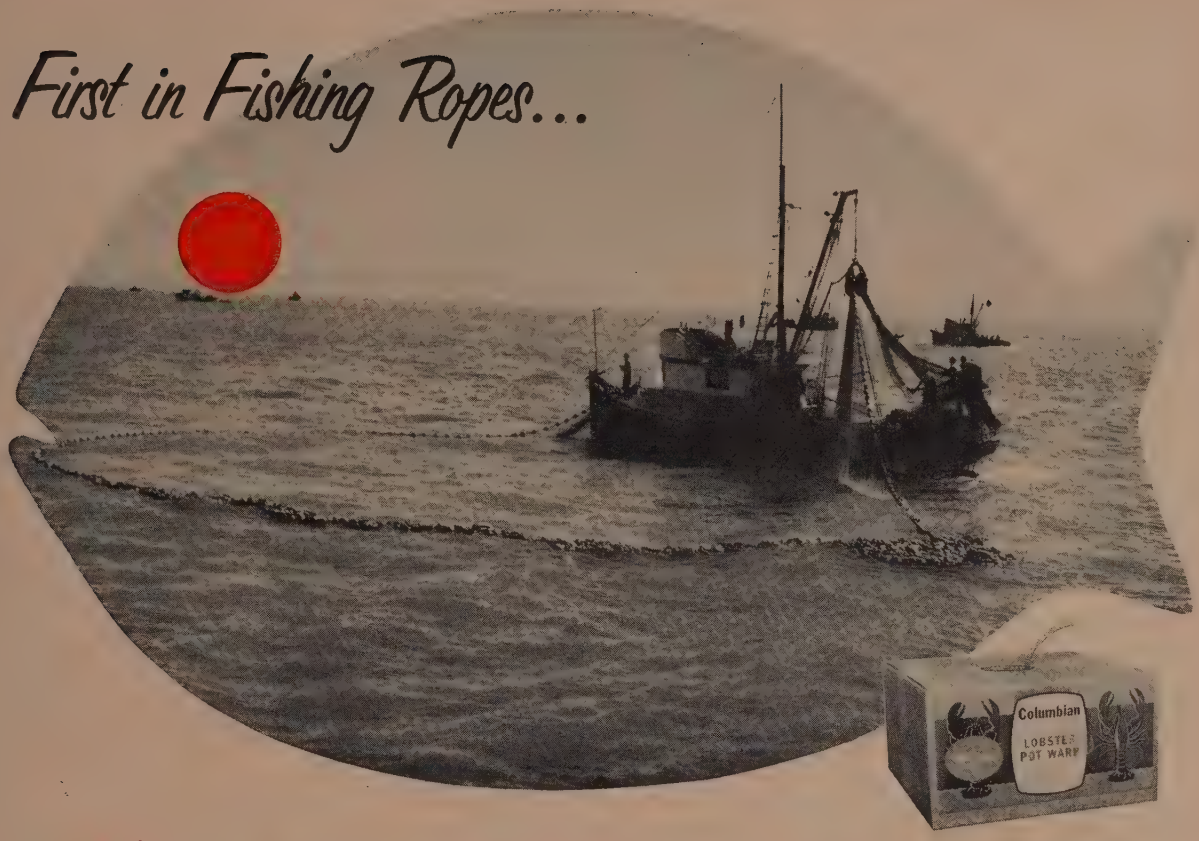
The Optimum Escapement—How Is It Measured and Attained?

● Attainment of optimum escapement—the number of spawners from which will return the largest number of mature fish in the succeeding generation—was discussed for the industry by Dr. Ole A. Mathisen, leader of F.R.I. Red salmon projects, who offered three factors of primary importance in determining and shaping this ideal. They are:

1. *Timing of the escapement* to permit the productive fish composing the peak of the run to pass through the fishery to spawn.

2. *Distribution of the escapement*

First in Fishing Ropes...



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Columbian research has done it again! It has prefected an absolutely new type of rope (patent pending) in which nylon is combined with flax.

This nylon-flax combination overcomes the drawbacks of an all-synthetic line while making full use of nylon's great strength and durability. It stays wet and runs cool even when used with power winches.

Nylon-flax is much stronger than cotton. It outlasts the average natural fibre rope many times. Due to its nylon content, it will withstand abrasion. It has no wet strength loss. There's nothing like it for purse lines and particularly for deep-water lobster pot warp.

Proved by months of actual fishing experience, Columbian nylon-flax rope means longer life—greater fishing profits! For full information, write Columbian Rope Company, Auburn, New York, today.

COLUMBIAN Rope Company

Auburn, "The Cordage City", New York

on the spawning grounds to eliminate both over-spawning and under-spawning; and to provide adequate seeding for the most productive areas, i.e., Black Lake instead of Chignik Lake in the Chignik system.

3. *Selective regulation* to protect weaker races, while taking the catch from the stronger. Dr. Mathisen felt this method unworkable in the racially-intermingled run of Bristol Bay as it passes through the fishery, saying: "Regulation by total number appears to be the only practical method."

He closed with a ringing challenge: "Man has it within his power by controlling the spawning escapement of 1960 to reasonable size to set-up strong Bristol Bay runs for several years to come. On the other hand, if escapement is excessive, with over-spawned gravels, fry-crowded lakes and stunted smolts, we may establish another series of low-level cycles."

"Research is the Answer—"

● What's the solution for the fishing industry's problems?

To this oft-asked question Dr. Richard Van Cleve, dean of the University of Washington College of Fisheries, has a ready answer. He gave it bluntly in Seattle March 15 before the Annual Reserch Conference, sponsored by the Association of Pacific Fisheries, using these words:

"Basic research is the answer — both in biological and technological fields."

Citing the steep rise of foreign fisheries, amid their growing share of the American market, Dean Van Cleve told the salmon operators flatly:

"There are two fundamental reasons for this trend. They are: (1) Our cost of production; (2) The quality of our products.

"We can readily produce top quality technologically; but do we?

"Our fishing methods are still primitive; and we still try to control our rate of fishing solely by reducing the efficiency of our harvesting methods.

"These are our problems, but there is nothing in them that sound research cannot solve, if we will provide it, and apply its results."

● Introducing the highly informative report of the College of Fisheries' research projects, Dean Van Cleve emphasized that they are all financed outside the normal university sources and are not supported in any way by funds appropriated by the Washington state legislature.

What of 1959 and Its Yield of Alaska Salmon Facts?

● Dr. R. L. Burgner, assistant director of the F.R.I., examined some of the Institute's work of the previous year, emphasizing:

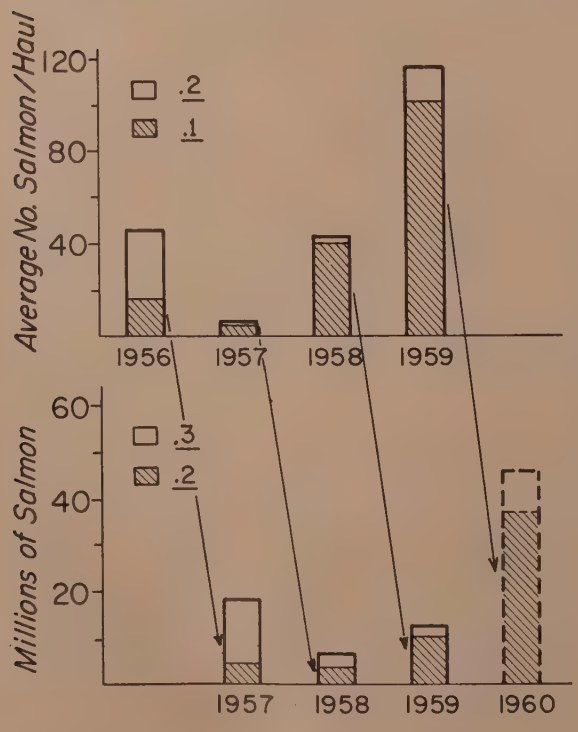
1959 *Forecast Results*—All Bristol Bay runs save that to the Ugashik exceeded the F.R.I. forecast, that to the Nushagak being virtually twice that of the specific figure of 2.4 million. Again, fish which had spent two winters in the sea dominated the return, quite contrary to expectations.

Escapement enumeration—The fact that these two-winter fish tended to escape the gillnets, plus an early-season strike, contributed to a heavy escapement which put 3.1 million fish on the spawning grounds of the Nushagak area, while only about 1.7 million were taken in the commercial catch. (In the past, escapements of from 600,000 to 1,000,000 fish on the Nushagak have been followed by the best returns).

Escapement distribution of the Nushagak run put 72.6% in the Wood River Lakes and normal seeding in the Igushik Lakes. Snake River was far above its usual percentage, but the Tikchiks were astonishingly low, receiving only 49,000 spawners. Of the Wood River Lakes, Aleknagik was poorly seeded, perhaps because of the stunting of the 1955 year class in the lake.

Intensity of spawning causes concern, for some gravels received as many as four fish per square yard. Fall egg census showed a number of eggs about half of expectations, but no excessive mortality among the eggs successfully deposited. This in the Pick Creek area.

Little Togiak spawning was heaviest of all in the Nushagak system, and here the egg mortality was extremely heavy, presumably from overcrowding.



Key to Forecast — The projection of immature Red salmon abundance on the high seas in one season into the correlated return the following year produces this figure which, with known heavy spawning in 1956 and large smolt migration to sea in 1958, is the basis for the F.R.I. forecast of a great Bristol Bay run in 1960.

Nushagak Forecast, 1960

● Continuing its specific forecasts of the Red run to the Nushagak, the Fisheries Research Institute this spring ventures Nushagak Forecast No. 7. On the basis of the smolt indices of 1957 and 1958, calculated on the expected return of 2-winter and 3-winter fish, the forecast is for a return of 2,225,000 Red salmon to the Nushagak in 1960.

However, if the forecast is based on the 1959 return of 2-winter fish, which was 4,208,000 Reds, with 3-winter fish expected this year in the *minimum* ratio observed in previous years, the forecast rises to 3,400,000 fish.

The forecast, then: *on the basis of smolt index,* 2,250,000 *Reds; on the basis of the* 1959 *run,* 3,400,000 *Reds.*

(It should be understood of course that the specific Nushagak forecast for 1960 is a component of the overall Bristol Bay forecast for this season,

but can be expressed more precisely because of the more abundant background and data bearing on that particular river system of the Bristol Bay complex.)

Photo-Electric Enumeration equipment and techniques studied in 1959 gave promise of excellent effectiveness in counting downstream migrants in fyke nets, and will be tested comprehensively in 1960. Dr. Burgner saw important saving in cost of operating the smolt enumeration equipment, as well as in damage to the young fish through proving of this equipment.

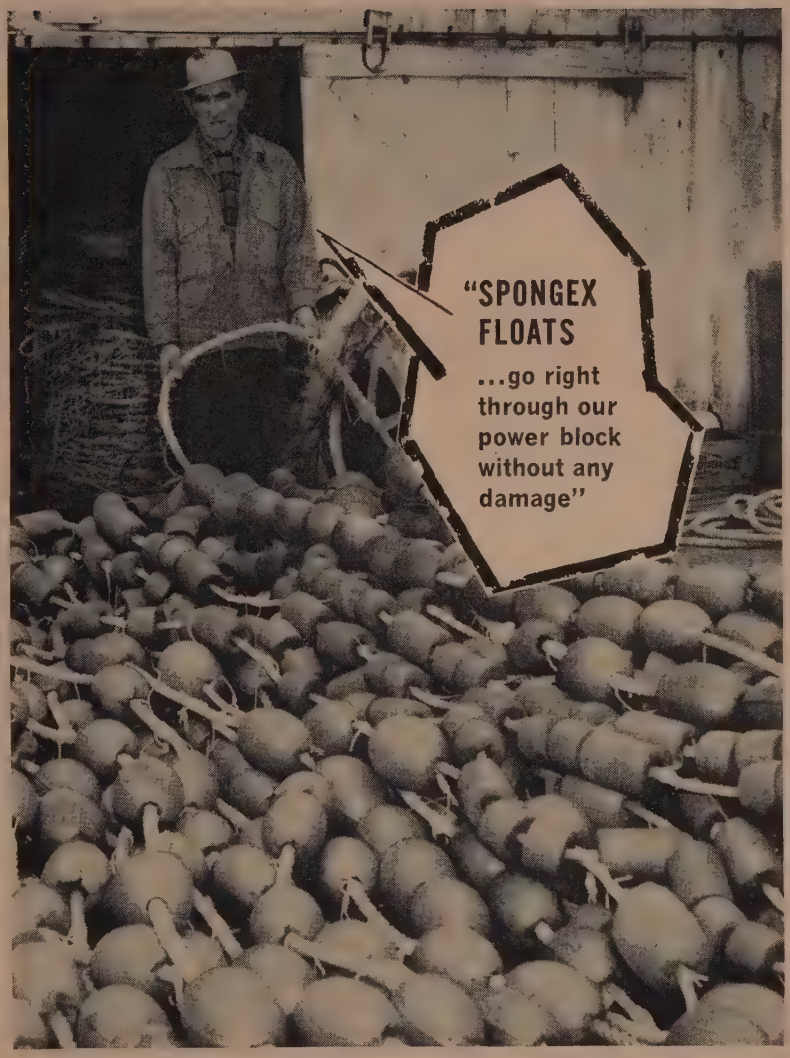
Pink salmon forecasts continue unreliable, but growing evidence continues to point to abundance of young Pink observed in coastal salt water as the best basis for prediction, although this method failed in 1959 at Uyak Bay.

Effect of logging on the Pink salmon streams of Southeast Alaska is being studied by one F.R.I. project, which already reveals the vicissitudes of this species' life history, with egg mortalities in the gravel running as high as 95% due to low levels of dissolved oxygen or gravel movement caused by freshets. However, in the area under study "in 1959 the escapement of Pink salmon increased more than eight-fold over the 1957 spawning escapement. This occurred in spite of a heavy early egg mortality of 95% of the 1957 spawning, in association with low levels of dissolved oxygen in the fall of 1957." The Institute is continuing its study of the possibilities of improving the effectiveness of spawning gravels by means of silt removal to give increased water flow, and is endeavoring to interest forest products industries in a controlled experiment on a "pilot plant" basis to test the possibilities of offsetting the detrimental effects of logging on Pink salmon propagation by utilizing available logging equipment for de-silting the gravels at periods between fry migration and spawn deposition.

"Historic Bay" Status Declared for Alitak

Positive intention to maintain full jurisdiction and control over the waters of Alitak Bay was announced recently by the Alaska Department of Fish and Game. The boundary of state jurisdiction is defined as within the area encompassed by a line drawn from the southern tip of Tugidak Island to Low Cape on Kodiak Island and for three miles seaward of such a line.

The Alaska Department of Law has advised the Department of Fish and Game that there is precedent for this claim and that the state jurisdiction can be upheld.



CAPTAIN OF 65-FOOT PURSE SEINER SWITCHES TO B.F.GOODRICH SPONGEX FLOATS... SAYS HANDLING IS EASIER THAN EVER BEFORE

"Three years ago we switched to B.F.Goodrich Spongex floats aboard our 65-foot purse seiner, 'Veteran'," says Captain Vincent W. Skonsie, Co-owner with his brother Antone, both of Gig Harbor, Washington.

B.F.Goodrich ring life buoys *for fishing boats have all the advantages of Spongex floats. U. S. Coast Guard approved and accepted by commercial lines.*

"There's no maintenance with these Spongex floats. They go right through our power block without any damage. Their weight stays the same—no waterlogging—and because less are needed to do the job, handling is easier than ever before," said Captain Skonsie.

All these advantages listed by Captain Skonsie—and still others—are what have put B.F.Goodrich floats on regular and newly converted seiners in fishing fleets everywhere. B.F.Goodrich floats come in 17 sizes, ranging from 3" x 1½" to 6" x 14". For full information, write to *The B.F.Goodrich Company, 145 Derby Place, Shelton, Connecticut.*

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- Low Moisture Absorption
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Increased catch from -

- Less Resistance to Currents
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- No Damage to Fish

.....together with Rot Proof • Strong Sunlight Resistance • LOW COST, all of which make "MANRYO" the indispensable netting for any fishing boat.

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PACIFIC FISHERMAN'S NEWS
APRIL 1960

QUESTIONS Alaskans are Asking Today

MR. BROODING ANSWERS—Chairman of the American Section of the International North Pacific Fisheries Commission, left, replies to a question by Denton R. Moore, Bristol Bay marketing association manager and editor.

● Alaskans are asking questions.

Here are some of them heard in Juneau late in the legislative session just closed. They were asked variously by state officials, by men in the street, by state senators and representatives, by fishermen, by businessmen.

Some of the questioners came from the Arctic areas, others from Southeast Alaska. Some live on the Alaska Peninsula, and others where the Copper River comes down to the sea.

Among the questions are a few which were asked in formal meetings, others in casual conversation. Several are drawn from legislative documents in which the authors, or the legislators speaking for the people of Alaska as a whole ask for actions or for answers.

Here are questions actually asked. Some of them received answers, but it is the questions themselves which are most significant in what they reveal about the state, its fisheries, and the way Alaskans are thinking:

● Why do we *need* a narrow territorial sea? Wouldn't we be better off with a wide coastal zone of fishery jurisdiction, in which historical rights of fishing would be recognized?

● Why was herring outside Alaska territorial waters withdrawn from abstention? Is it fair and reasonable to count economic inability to utilize the herring population fully as throwing a cloud on "maximum utilization," which is a qualification based in biology?

The Bureau of Commercial Fisheries' quota management policy for years certainly indicated maximum utilization; and made further utilization impossible. Why then was this point of view abandoned in favor of a "not fully utilized" contention?

If the B.C.F.-imposed quotas had not existed, would Alaska's utilization of its herring resources not have qualified them for continuing abstention?

● Where are the Japanese getting the halibut they have been selling since they started trawling in eastern Bering Sea, and only since then? What are you going to do about that? Are we trying to find out if this halibut fishing

Japanese Salmon Operators Anticipate Fleet Cutback

Apparently accepting a reduction in Japanese high seas salmon fishing effort in 1960 as an inevitable consequence of the Soviet Union-Japan fishing treaty conference in Moscow, salmon operators in March were grappling with the means by which this could be done with the least hardship to those largely dependent upon this fishery.

To determine who, and how many, should forsake the right of salmon fishing in 1960 is a complex problem. Late in March it appeared that agreement had been reached that the number of high seas salmon gillnetters should be reduced by 50 vessels, with monetary and other compensation for the boats barred from the seasonal fishery.

Thus it is anticipated that there will be 410 catcher boats active in the high seas fishery of 1960, as compared with 460 in 1958 and 1959.

Question as to the appropriate reduction in cannery ships was still unresolved at time of writing, but it was anticipated that from three to five vessels would be eliminated from the active list.

is not in violation of Japan's abstention under the treaty?

Has Japan been asked officially to comment officially on this point?

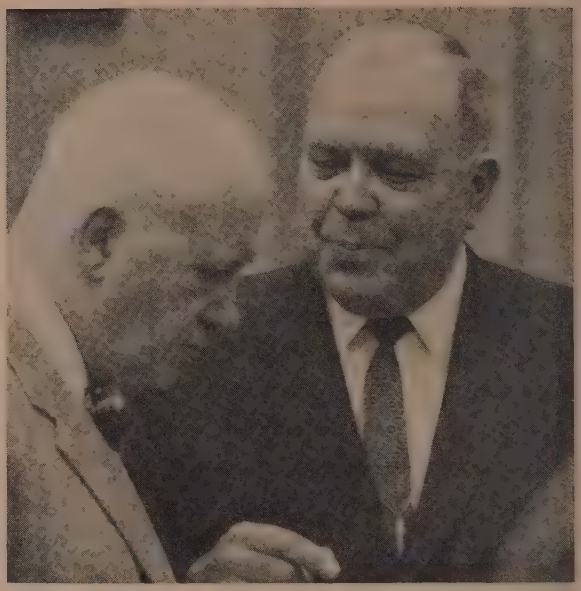
If the Soviet fishing fleet begins to exploit established halibut banks, what then?

● Will the fishing industry cooperate with the State of Alaska in seeking from the Federal government funds with which to undertake restoration of the Alaska fisheries from the condition into which they have declined because of failure to provide funds in adequate amount for protection, administration and scientific research of the fisheries while they were under Federal control?

● Will the United States Senate listen to Alaskans' insistence that ratification of the Convention on Fishing and Conservation of the Living Resources of the High Seas be made subject on the part of the United States to a proposed understanding as regards the conservation procedure known as "abstention"?

● Why would it not be sound for North Pacific nations *all* to foreswear high seas fishing for salmon?

Failing this, would it be unreasonable for Alaskans to insist upon changes in the law which would permit them to fish salmon on the high seas in competition with Japan?



Senator B. J. Logan of Cordova, a member of the Alaska Senate Committee on Natural Resources, responsible for fisheries, is soberly attentive while Commissioner Arnie J. Suomela of the U.S. Fish and Wildlife Service takes pleasure in his explanation.

● Why does the U. S. Department of Interior not "refrain from authorizing the organized villages of Kake, Angoon and Metlakatla to operate fish traps" when Alaska has overwhelmingly voted against such gear, has by law made its operation a criminal offense, and "use of fish traps is not only inimical to the sustained yield principle of conservation but also creates great inequities in competition among individual fishermen on the basis of race"? (House Joint Memorial No. 50.)

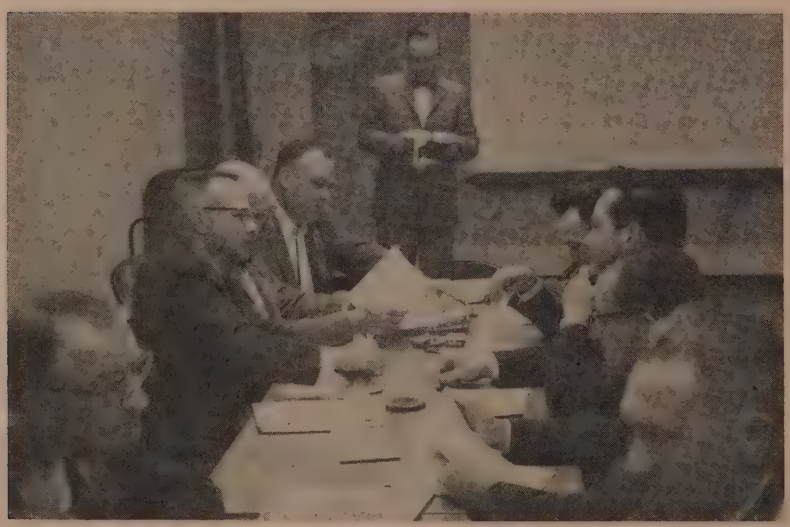
● Is it not reasonable that Alaska should explore with Japan the possibilities of an economic interchange leading to protection of the Bristol Bay salmon from high seas exploitation and the development for export of such Alaskan raw material resources as iron ore, wood pulp and coal?

● Won't the heavy fishing by Soviet and Japanese in eastern Bering Sea perhaps upset the biological balance of Bering Sea for all of us? Can't you understand why Alaskans feel very strongly that this resource must be protected? Is the United States doing anything to encourage its citizens in establishing and maintaining a fishery in this sensitive area where the Soviet Union and Japan are earning historic fishing rights, and where the United States is not?

● Why should the coastal state not have administration over the fisheries to the limits of the continental shelf off its coasts?

Why does not the Federal government "declare its continental shelf off-limits to the fishing fleets of all nations, and enforce its declaration by patrolling the waters of the continental shelf with armed vessels?" (Memorial 35.)

As the Alaska Statehood Act gave the state responsibility "for the administration, management, and conservations of said resources in the broad national interest," is it not reasonable to expect that Congress should provide adequate means for support of these obligations in the national interest?



Advisors and Legislators—Discussion during session of the Senate and House Natural Resources Committees with the American Section. From the left: Robert Kellenberg, Dillingham, largely obscured; Harold E. Lokken, Seattle; Dr. W. F. Royce, Seattle; Senator B. J. Logan, Cordova; Senator Jack Weise, Bethel; Representative Peter Deveau, Kodiak, standing; Douglas Gregg, assistant attorney general; Representative Jay S. Hammond, Naknek; T. F. Sandoz, Astoria; Peter Tanstad, Cordova, new member of the American Section's Advisory Committee.

STANDARD ENGINEER'S FIELD REPORT

PRODUCT **RPM DELO OIL**

FIRM **Columbia River Packers Assn. Vancouver, Washington**

21,600 hours on RPM DELO OIL before overhaul

Operating at top speed 90% of time, MV Triton (above) ran 9 years on RPM DELO Oil for Columbia River Packers Association, Vancouver, Wash., before overhaul. One of three pickup boats in operation, this 48-footer collects from 12 to 16 tons of fish per trip from fishing boats for delivery to Ellsworth Station. 160 h.p. Graymarine engine, overhauled in 1956 after 21,600 hours, had no carbon, lacquer deposits or stuck rings, and no rust despite fact Triton had sunk seven times in service.

Station Mechanic and Launchman George Lane reports: "RPM DELO Oil has never let us down. It keeps our engines in top running condition with no corrosion or sludging problem. That's important because, when the fleet is working, the catch must be collected by these boats as fast as possible. Any poor engine performance or breakdown could cause the catch to spoil on the way to the cannery."

Why RPM DELO Oils reduce wear—prolong engine life

- Metal-adhesion qualities keep oil on engine parts, running or idle
- Anti-oxidant resists formation of lacquer
- Detergent keeps parts clean
- Special compounds prevent corrosion of bearing metal
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For More Information contact your Standard Engineer or Representative, or write 225 Bush Street, San Francisco 20, California.

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STANDARD OIL COMPANY OF CALIFORNIA

PACIFIC FISHERMAN'S NEWS

APRIL 1960 Volume 58 Number 5

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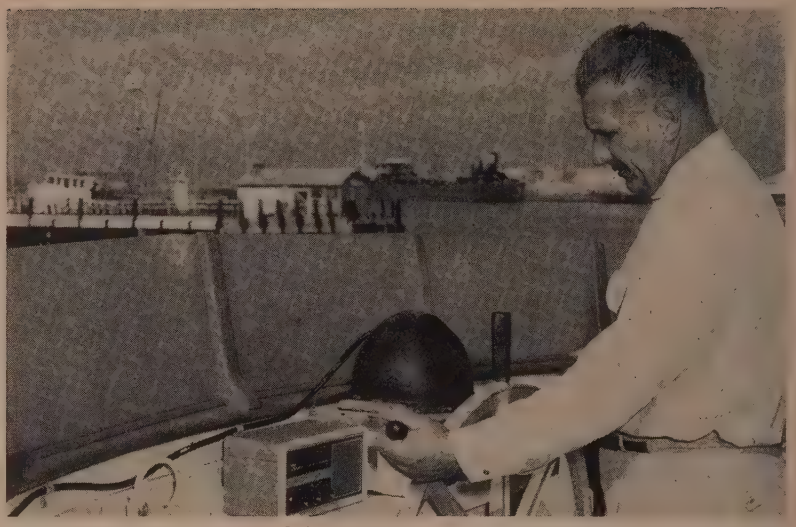

Tony Mihovilovic, owner of the purse seiner **Marauder,** San Pedro, uses the new Bendix Shipmate II monitoring receiver, which he can take to the crow's nest or pilot house because of the receiver's built-in batteries. It can also be operated from the vessel's 12-volt system.

Record King Crabbing Experienced at Kodiak

Exceptionally heavy King crab fishing in the Kodiak district was recognized during the first months of the year, but just *how* good it was did not become apparent until late in March when the Alaska Department of Fish and Game report 637,428 crabs were taken in January and February in that district. Gross weight was 6,862,466 lbs., a nice 10-lb. average.

The catch represented 1,430 landings made by 106 vessels fishing 2,884 crab pots.

The fishing effort this year is greater than it has been at any time in the history of the fishery. This effort, coupled with an unusually mild winter on the fishing grounds, kept five shore installations and two floating processors busy, with the result that more people are employed processing crab in the Kodiak area than in any previous year. An additional eight vessels are being employed as tenders and for servicing the fleet.

Octopus Delivered Direct From Japan to Ketchikan

J. K. Johnson, in charge of New England Fish Co. operations at Ketchikan, came down to the company's Seattle headquarters in March, reporting the direct delivery from Japan of a large consignment of octopus frozen for halibut bait.

The shipment arrived aboard the motorship *Theodore Bakke* and was unloaded at the New England cold storage in Ketchikan.

In addition to the imported octopus, which halibut fishermen have come to esteem so highly as bait, Mr. Johnson reported the cold storage had put up a substantial quantity of first-class bait herring.

CORRECTION—

Starr Net on "West Point"; Adams on "American Boy"

● An unfortunate error was made in the caption on Page 14 of the March issue of *Pacific Fisherman,* which said that the *American Boy's* net pictured was manufactured by the A. M. Starr Net Co. Actually it was an all-nylon Adams Best net made by The Linen Thread Co.

A. M. Starr Net Co. furnished the all-nylon seine aboard the converted seiner *West Point.* It was this net which was shown on the cover of the March issue of this journal, and not that on Page 14.

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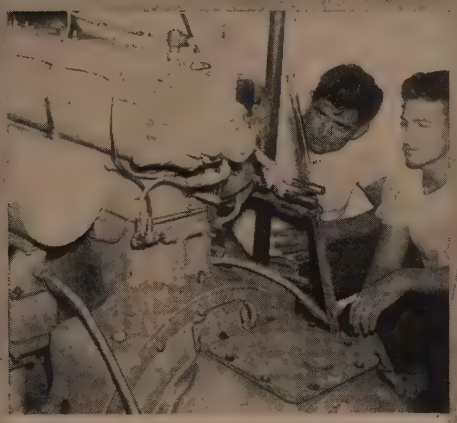

Captain Elmer W. Taylor, left, and Robert Bryant, Jr., look over the new Murphy Diesel in the engine room of the Chris-Alan.

MURPHY DIESEL

—"A dream engine for a dream boat"

says Captain Elmer Taylor

Take it from Captain Elmer W. Taylor, Captain of the *Chris-Alan* out of Bayou La Batre, Alabama. He's a man who knows shrimping . . . and the imporance of dependable propulsion power.

"We have a new 200 hp (continuous) Murphy Diesel aboard our new shrimp trawler, the *Chris-Alan,*" he states, "and I can tell you it's a mighty fine engine. I had quite a bit of experience with the Murphy Diesel on another trawler, the *Three Sisters,* of which I was captain, and I never had 'wrench one' on it. Yes, sir," says Captain Taylor, "the Murphy is dependable and economical and fits the *Chris-Alan* . . . a dream engine for a dream boat."

Ask your Murphy Diesel Dealer about Murphy dependability and economy for your "dream boat." There's a Murphy Diesel Model to fit your needs exactly . . . propulsion engines available from 105 to 315 HP; Marine Type Generator Sets, 60 to 188 KW; Auxiliaries, 105 to 320 HP.

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HOW ACRONIZE MADE THE OCEAN A LITTLE BIT SMALLER

Read how five members of the Fort Myers Shrimp Producers Association used Acronized ice to bring fresh shrimp from the coast of Honduras

New shrimping sites are hard to come by. Often, when a new bed is discovered, it's too far away from established ports to get a good catch and get it back without excess spoilage. That's why it was big news recently when five boats docked in Fort Myers, and unloaded top quality *fresh* shrimp caught off the coast of Honduras. All five boats had one thing in common: all had taken aboard ACRONIZED® ice!

Here's what one of the five—boat owner and shrimp producer Frank Haneburger – has to say about the Honduras shrimping site and ACRONIZED ice, "I've been producing shrimp for over 30 years. To say I'm pleased with the shrimp we landed from Honduras is putting it mildly. This shrimp was of the highest quality with no trace of spoilage or sourness even after two weeks of fishing. You can bet I plan to use ACRONIZED ice for my future trips."

Representatives of American Cyanamid Company and Fort Myers Shrimp Producers Association examine Acronized shrimp caught off Honduras.

What is Acronize?

ACRONIZE® is an antibiotic made especially for food processing. It has received government clearance for use on fresh-caught whole, headed and gutted fish, shucked scallops, and unpeeled shrimp.

How Acronize works

ACRONIZE slows down the multiplication of bacteria that cause souring, sliming and eventually complete spoilage. Tests on a wide range of species prove ACRONIZE keeps fish, scallops and shrimps fresh and firm 30 to 100% longer.

How Acronize is used

Because ACRONIZE does *not* eliminate refrigeration, but enormously increases its efficiency, it is incorporated in the ice. Standard icing procedures are followed.

For more information about ACRONIZE, see your ice supplier, or write: American Cyanamid Company, Agricultural Division, New York 20, New York.

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CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

One-third of a Century of halibut fishing still found the schooner **Northern** neat and nimble after she shipped her new A-C diesel,, turning through a 5:1 reduction gear, and giving her 9.35 mph. while running under wraps. Capt. Louie Dahlberg headed her for Area 3-B, out beyond the Shumagins, where there is no quota on halibut and the weather makes men out of boys.

Veteran Halibut Schooner is Sprightly With Her New Diesel

Northern, one of the better known Seattle halibut schooners, will head for the grounds this spring with a completely new power plant.

Replacing the old Atlas is an Allis-Chalmers Model 21000 turbo-charged Diesel. The new engine turns a 66 x 40 Olympic wheel through a 5 to 1 Capitol Model HYC 10-800 hydraulic gear. For engine controls Mathers Two-in-One have been installed.

Lots of Room around the new Allis-Chalmers Model 2100 turbo-charged diesel in the halibut schooner **Northern's** engine room. The new mill turns its 66 by 40 Olympic wheel through the 5-to-1 Capitol reduction gear in the foreground.

Northern is owned by Capt. Louie Dahlberg of Seattle, and is one of the real old-timers in the fleet. Built in 1927 she was rebuilt at Haugen's yard in Poulsbo in 1934. Typical of the many schooners still in service, *Northern* is 66.5′ x 17′ x 7.9′ with the house aft and galley in the foc'sle.

The new engine has the first of a recent A-C development attached. This is a Delco-Remy alternator — 32 V; 60 Amp.—which gives ample electric power at the widest possible range of engine speeds. Transistorized regulators provide a uniform power rate for the various electronic and electric units aboard.

During the trial trip *Northern* showed a nice increase in speed at an easy 1700 rpm. Over the measured mile she ran 9.35 mph. and at a slightly higher rpm. showed an even better turn of speed. The engine is rated at 230 continuous horsepower at 1800 rpm. but Capt. Dahlberg expects to operate the power plant at about 100 rpm. below rating.

The installation was made by Pacific Fishing and Trading Company, Seattle with Leo Weberg handling the details.

Price of Halibut was the topic for this quartet on the **Northern's** trial trip. From the left—Capt. John Overbo, **Pacific;** Capt. Arne Einmo, **Polaris;** Capt. Louie Dahlberg,**Northern;** and Capt. Martin Lorentzen of the troller **Monarch.**

Bristol Bay Registration Rules Are Amended

An emergency regulation to clarify registration for Bristol Bay fishing was promulgated recently by C. L. Anderson, commissioner of the Alaska Department of Fish and Game.

Section 104.23 was reworded so that it now requires that the following information be supplied by the applicant *at the time of initial registration.*

(1) The district in Bristol Bay in which the boat and gear is intended to be used prior to June 27, if any, and;

(2) The District in Bristol Bay in which the boat and gear is intended to be used during the period of the gear time table (Section 104.06(b) of the regulations.

The Department stated that it will expedite matters for all concerned if the information called for in (1) and (2) above is supplied in all applications for vessel and gear licenses.

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"Paragon" and "Pioneer" Win Research Charters

The halibut schooners *Paragon* and *Pioneer* won the charters for the U. S. Bureau of Commercial Fisheries' high seas salmon and king crab studies for the 1960 summer season.

Paragon is an 80' schooner owned and operated by Capt. Harry Jacobson. *Pioneer* is a 70' vessel owned and skippered by Capt. Olof Hendricks. Both vessels have been chartered previously for the North Pacific research.

Operating out of Adak, the schooners will conduct investigations in the Central North Pacific and the Bering sea. They will leave Seattle about May 1.

Paragon will be used in both salmon and King crab investigations and will return to Seattle about September 15. Senior scientist aboard will be Richard C. Johnsen. *Pioneer* will be used exclusively for salmon studies and will return to Seattle about September 1. Scientist in charge will be Richard A. Hajny.

High seas crab and salmon research is being conducted for the U. S. section of the International North Pacific Fisheries Commission by scientists of the Bureau of Commercial Fisheries.

Reidar Hammer Chosen For 4th FCA Term

Reidar Hammer, owner-operator of the troller *Victory*, was again elected president of the Fishermen's Cooperative Association, Pier 59, Seattle. This is the fourth consecutive term that he will serve the trollers as their president and his ninth year on the Board of Directors.

Kristian Kyvik of Aberdeen, Wash. was elected vice president and Bert Johnston of Seattle secretary-treasurer.

Willis Short of Charleston, Ore. was the only new member elected to the Board of Trustees. Dan Hjort of Kirkland, Wash., Tom Leal of Port Angeles, Wash., Henry Parpart and Oscar Hall of Seattle completes the Board of Trustees serving for the ensuing year.

Storms Cost Crabbers Much in Lost Gear

Violent storms early this spring cut off temporarily virtually all crab fishing in northern California.

Crab boat owners said it was doubtful if crab fishing would get back to normal for some time. Fishermen said that equipment valued at $270,000 had been lost. Eighty of 122 boats based in Eureka were said to be idle from loss of gear, and the San Francisco fleet of 30 boats had 90% of their pots sanded in.

U. S. Court Rules for Freezerships

● A tax case decision which in the long run may have profound effect upon the development of Alaska fisheries was rendered by the United States Circuit Court of Appeals in San Francisco late in March.

Overturning decision of the Alaska district court, the appelate court held in effect that fish caught in Alaska waters and loaded on freezerships for transport to Puget Sound for canning are put into interstate commerce by the fact of loading, and thus are not taxable by the state, as the Constitution gives Congress the sole power to levy a tax on products in interstate commerce.

The appeal was taken by seven companies operating freezerships in Bristol Bay waters during the period from 1951 through 1954. Taxes in the amount of $116,731 were at issue.

Companies involved in the action were: Grimes Packing Co., Northern Reefer Co., North Star Fisheries, Alaska Reefer Fisheries, Pacific Queen Fisheries, Arctic Maid Fisheries, Inc., Pacific Reefer Fisheries.

Out of the speculation which developed following the decision, two opinions were voiced generally.

These were that (1) the decision would probably be appealed to the United States Supreme Court by Alaska as a state, where it was under territorial status at the time the taxes originally were levied; (2) further favorable ruling would do much to restore freezership operation as an active factor in Alaska fisheries.

Spring Chinook Season Set for North Puget

Fishing in the northernmost waters of Puget Sound, Area 1, generally from Orcas Island to the Canadian boundary, is provided this spring from April 18 in new regulations promulgated by Milo Moore, Washington director of fisheries.

Nets are limited to a minimum 8½" mesh, but may be either gillnets or reef nets. The season will give ambitious fishermen a chance to compete with the Canadians for the early run of spring Chinook salmon to the Fraser River.

Another distinctive aspect of the new regulations is a special Chum salmon season in Hood Canal north of Browns Point from Nov. 7 to 30.

Area 3-B Halibut Season Should Run to Oct. 16

Halibut fishing in Area 3-B, lying west and north of the Shumagin Islands, may be expected almost certainly to continue until Oct. 16, 1960.

The statement in *Pacific Fisherman's* last issue to the effect that Areas 3-A and 3-B would close simultaneously was incorrect. This would occur only in the unlikely circumstance that the Area 3-A quota should not be attained by Oct. 16.

8 Small Boats Lost In Trinidad Storms

Winds to 45 mph. and 35' seas early last month wiped out more than half of the commercial fishing fleet at Trinidad, Calif., with at least eight boats lost.

All of the boats were 28-30' trollers. Among the boats lost were *Chinook*, Roland S. Johnson; *Terry*, Frank Cameron; *Sally*, Thomas and Katie Smith; *Morning Star*, Eldon R. Fetters; *Toot*, Elmer Russell; and a craft tentatively identified as *South Bay*, William McSloh, Blue Lake; *Dorothy F.*, Howard Walker, Eureka; and the *V. Lombardo*, Otto Kraasch, Trinidad.

Price of Crabs Rises to 16c; Pack Short

Price of ocean-run crabs at principal fisheries of Oregon and Washington rose to 16¢ per lb. about the middle of March, perhaps the highest level ever paid during the spring months in peacetime.

Despite the price, landings were light, continuing to reflect the scarcity, or lack of availability, which has characterized the population all year. Moreover, there seemed to be a tendency on the part of the fleet in March to switch to shrimp, trawl fishing, trolling or halibut. Significant crab production, operators felt, was about over for the season; and by April it appeared that crab fishing would have declined to a fresh market supply basis.

Canners and freezers alike report the pack of Dungeness crabs in warehouse or cold storage as extremely light.

Veteran Tunaman Dies in Auto Wreck

A fisherman aboard the San Diego tuna clipper *Liberty Bell* for 25 years, David Lerma, was killed in an automobile accident ashore last month. Driving between Rosarito Beach and Ensenada, Baja California, he was involved in a crash that took his life and seriously injured his widow. Mr. Lerma was born in Los Angeles and had lived in San Diego for 30 years.

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9 New Welded Puget Sound Seine Skiffs Of Aluminum

● Another boatbuilder has ventured into the field of aluminum boat construction for the fishing industry. His name is John Dontos, and at Edmonds Wash., he is building the first four of a series of at least nine seine skiffs, all welded aluminum, for Puget Sound-based fishing vessels.

Dontos himself is a fisherman, having sold his seiner *Sebanus* in order to devote full-time to the aluminum building operation for this season. He plans to build a new seiner for himself when the current series of skiffs is built, and he intends to make the seiner all-aluminum too, the main objective being an 18-*knot speed*. More about that later.

The skiffs Dontos has under construction are 17'3" long, 8'7" beam, and with a variety of power plants. The first one, for Spud Johnson and his seiner *Patty J.*, is powered by a package-unit Western Ford diesel, 6-cylinder, from Pacific Fishing & Trading Co., Seattle, and with a 2½:1 reduction and chrome-plated bronze Olympic 25x17" propeller. The second, with the 4-cyl. Western Ford package and 3:1 reduction, is for Jerry Grandberg. The third, with a GM Series 4-53 diesel, 2½:1 reduction, 26x16" wheel, is for Alan Cole. The fourth, with the 6-cyl. 100-hp Western Ford, is for Henry Antonsen. And so on.

The entire hull is welded aluminum, with stainless steel shafts and fastenings and a specially-developed hollow stainless-steel rudder. There are three flotation tanks, one in the bow, two in the stern corners, with a 350-lb. area at the stern which can be flooded for ballast. The skiffs carry 95 gal. of fuel, with nylon fuel lines and a built-in fuel settler beneath the tank.

Aluminum is 5086 sheet, with alloy 6061 for extrusions, from Kaiser and from Reynolds.

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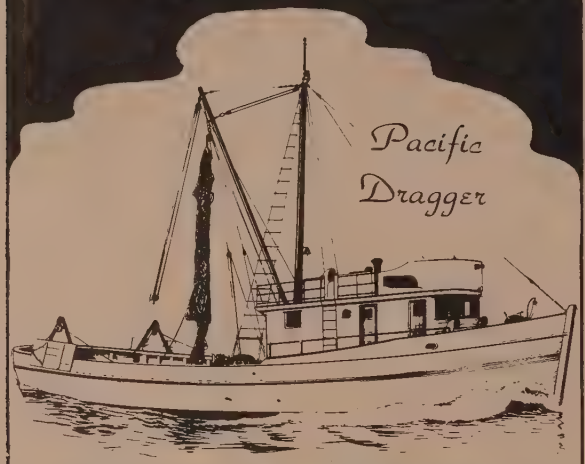

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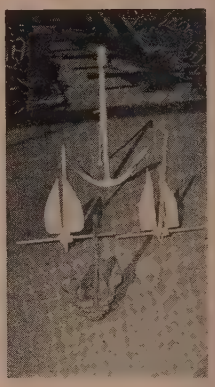

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Peru and Ecuador Mount Coordinated Tuna Study

● Peru and Ecuador will soon engage in scientific research into the habits and surroundings of tunas in the waters off their shores. In this work they will collaborate with the Inter-American Tropical Tuna Commission.

This was disclosed by Dr. Milner B. Schaefer, Director of Investigations of the Commission, at its annual meeting in San Jose, Costa Rica, last month.

The Inter-American Tropical Tuna Commission is a scientific body composed of commissioners from the United States, Panama and Costa Rica. Its function is scientific research of tropical tuna and tuna bait fish in the eastern Pacific.

Peru and Ecuador are not members of the convention, but have applied to the Special Fund of the United Nations for grants for fishery research work which will dovetail with the commission's work. Arrangements have been worked out for exchanging facilities between the commission and the groups which will carry out the work for the two South American nations.

In Peru, the working organization will be known as the Institute of Marine Resources; in Ecuador as the Fisheries Institute. It is anticipated that the projected research will bring out information about tunas, bait fish and their home waters, which will ultimately benefit all tuna fishermen working in South American waters.

● Last month's San Jose meeting of the commission drew delegates not only from the member nations, but observers from Mexico, Guatemala, El Salvador, Honduras, Colombia, Ecuador, Peru, Chile and Italy. Donald P. Loker, vice president of Star-Kist Foods, Inc., and Anthony Nizetich, manager of the Fishermen's Co-Operative Association of San Pedro, attended as advisors to the U. S. delegation.

It was brought out during the meeting that some nations at present not members are thinking seriously of joining. Their membership would strengthen the commission's work in a good many ways, it was said.

The commission approved Dr. Schaefer's proposed research program and budget for the fiscal year 1961-62, providing for a general continuation of the Commission's present scientific work. A new project which will probably be undertaken in co-operation with the Ecuadorian effort, Dr. Schaefer said, would be a detailed study of the oceanography and ecology of the Bay of Guayaquil. The commission is interested in such a study because the Bay of Guayaquil has always been a source of baitfish for the U. S. tuna fleet, while the Ecuadorians need the information to improve the shrimp fishery in and around the Bay.

● The Commission asked its member Governments to apply to the Japanese Government for information on the quantity and make-up of the new long-line fishery now being developed by Japanese vessels in the Eastern Pacific.

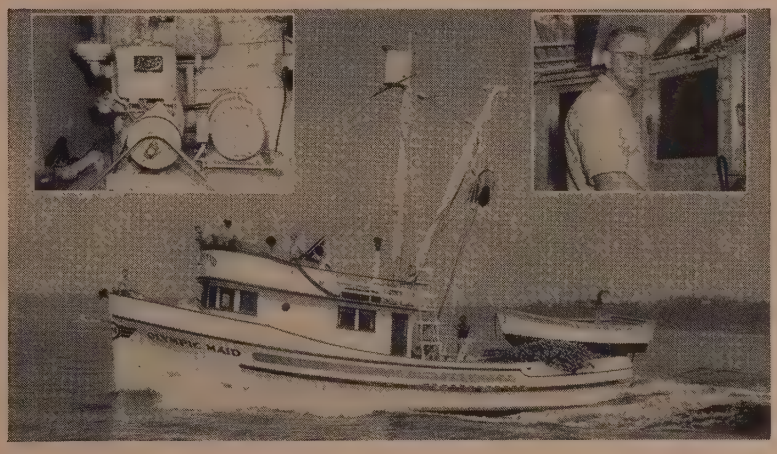
It was pointed out that the long-line boats are now fishing in the same area in which the commission is studying the effects of fishing on the tuna stocks. In such a study complete data on catches and fishing effort are essential, and there is danger that the Commission's whole study may lose its value unless the long-line boats provide information on their catches and operations. As no results have come from direct appeals for information to the Japanese Fishery Agency, the Governments are being asked to make official request of the Japanese Government.

Fraser River Board Gets Bruce Chatwin

Bruce ("Mac") Chatwin, for nearly three years biologist with the Inter-American Tropical Tuna Commission at Pt. Loma, Calif., is the new biologist of the Fraser River Basin Board, with headquarters at Vancouver, B. C.

Mr. Chatwin's move to the Fraser River Basin Board is a home-coming for him as he was born at Edmonton, Alberta, and educated at Vancouver. He was biologist at the Fisheries Research Board, Nanaimo, B. C., for seven years before joining the Tuna Commission staff.

His successor at the Commision will be Bernard Fink, who comes from the Hopkins Marine Station, Stanford University. Born in New York, Mr. Fink did graduate work at Stanford and was a fisheries biologist in the sardine program conducted by California Co-Operative Ocean Fisheries Investigations.



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For Sale: Salmon-albacore troller "Jean Ellen". 47' x 14'6" x 6'. 20 Net ton, Cat. D40-600 engine. Complete new electronics, 15 ton albacore hold, sharp freeze. 1050 gal. fuel, Hydraulic gurdies and anchor winch, stainless rigging, fine quarters. $25,700.00. Swan: 46' x 14' x 6'5" Comb. troller-sardine. Very heavy build, 31 ton sardine hold, GM 6-71, 3 to 1 red. 2" Monel shaft, 1200 gal. fuel, 3 spool gurdies, Seine winch, lampara gurdies. Pilot, DF, etc. $26,200.00. Verne Allen, broker, P.O. Box 57, Moss Landing, Calif.

For Sale — Eighty-foot ex-Coast Guard SILVER SPRAY rigged for albacore or packing; twin 671-powered; Onan diesel auxiliary. No refrigeration. May accept part trade boat or real estate. Can finance convenient terms to responsible party. For full information, principals only write Box 322, PACIFIC FISHERMAN'S NEWS, 71 Columbia St., Seattle 4, Washington.

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For Sale—Working share in 10-year old Plywood Corp., or will trade for working interest in Halibut Boat. Write Box 30, c/o Pacific Fisherman's News, 71 Columbia Street, Seattle 4, Washington.

For Sale — 3/8 Galv. triple B Chain — 145 foot lengths—.26 per pound; 1 New Surplus 671 Block —$275.00; G. E. 25 watt, 12 volt frosted lamps—.20 per lamp, by the case—120 lamps per case; Jap Feathered jigs, 1½ ounce, .25 each, 2 ounce, .30 each. California Commercial Fisherman's Association, 745 South Seaside Ave., Terminal Island, Calif. Phone TE 3-4509.

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For Sale—30 skates Halibut gear, buoy line, kegs, flags, anchors, lights, complete. In good condition. Tom Rustad, Box 316, Poulsbo, Washington, PR 9-2435.

For Sale—42' Monk design northern troller, built 1949, 3 cyl. GMC diesel (new 1953), Fairbanks aux., 110 W Apelco, Lear ADF, Bendix Fath., Freeman auto pilot, Bendix D. F., Loran, bait tank, refrig. 11 ton. Ready to go . . . $18,750. SUN HARBOR MARINA, INC., 5104 No. Harbor Dr., San Diego, Calif.

For Sale — 33 foot Troller, "Freida Ann". Fully equipped, Fathometer, Iron Mike, Ship-to-shore radio. Boat built in Canada in 1947. In A1 condition. Price $5,000. Ronald Cowles, Grayland, Washington. AN 7-2311.

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Sun Europa Skipper Killed by Gas From Ammonia Line Break

A dockside unloading accident cost the life of Ernie Rose, skipper of the big recently converted purse seiner *Sun Europa* last month, and resulted in serious injury to several other crew members.

Ernie Rose, co-captain of the *Europa* (whose picture appeared in *Pacific Fisherman*, March, 1960) was killed when an ammonia pipe broke in the hold of the vessel and he was held in the hold by an unloading bucket out of control. Tom West, engineer and co-owner of the vessel, was hospitalized for several days, and other crew members suffered burns and other injuries when they tried to save their mates.

The accident took place at the cannery unloading docks at Terminal Island, Calif.

Meltzer Swings North For Fish Net & Twine

Otto Meltzer, for many years a well and widely known figure in the business of supplying Pacific Coast fishermen with their nets, made a swing through the Pacific Northwest in March from his new headquarters in Southern California. He has shifted his base of operations from the San Francisco complex to that tributary to Los Angeles, where his address now is 250 Grace Drive, South Pasadena.

Salmon Cutting in Seattle March 15 was one of the objectives of his trip north, attendance being worked in along with calls on distributors of the Fish Net & Twine Co. of Menominee, Mich., of which Mr. Meltzer is the Pacific Coast representative. In Seattle he spent some time with Mel Anderson of the Seattle Marine and Fishing Supply Co., Fish Net & Twine Co. distributors.

Wilbur Church Named To Bristol Bay Post

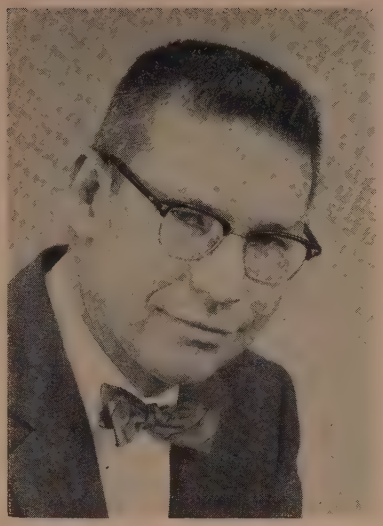
Wilbur Church of Dillingham, Alaska, has been named assistant district biologist for the Commercial Fisheries Division of the Alaska Department of Fish and Game. Dean Paddock, who has served the department almost four years in Bristol Bay is the district biologist.

Mr. Church is well known in the Bristol Bay area, for he arrived there in 1937 as a commercial fisherman, remaining there as a fisherman and trapper until World War II.

During World War II he was for four years a member of the famed Alaska Scouts, and he fought with that organization in the Aleutian campaign.

In the winter of 1946-47 he worked for the industry-sponsored Fisheries Research Institute, studying salmon egg survival in the Bristol Bay watershed. He also worked as a biologist for the F.R.I. from 1952 until 1959, mostly studying winter mortality of salmon eggs at Lake Nerka. A paper that Mr. Church prepared on these studies is to be published soon.

Church has participated in studies of downstream migration of salmon smolts, and upstream counts of mature salmon from towers for the F.R.I.



Leonard Lovett, for six years a tuna fisherman, advanced by Raytheon in its electronics products marketing organization on the Pacific Coast.

J. L. Lovett, Ex-Tunaman, Promoted by Raytheon

J. Leonard Lovett has been named marketing manager for Raytheon marine electronics products sold through dealers, it was announced today by Sidney Konigsberg, manager of Raytheon Company's Marine Operations. Lovett had been western zone manager for the company's Commercial Apparatus and Systems Division with headquarters in Los Angeles. He will transfer to the newly established headquarters for Raytheon Marine Operations here.

Lovett has directed sales and service for Raytheon marine and industrial electronic products on the West Coast since 1948 when he joined the company during the merger with Submarine Signal Co. With that firm he had been engaged in commercial sales and service. During World War II he installed and serviced Submarine Signal sonar equipment aboard naval vessels in the South Pacific.

Before joining Submarine Signal Co. in 1938, Mr. Lovett sailed for six years as a radio operator and navigator aboard tuna clippers based at San Diego.

Troller "King" is Sold

The 50' troller *King,* one of the largest vessels in the true troller fleet, was purchased in March by Harold Hendrickson of Astoria, who secured the vessel from Petter Lockert of Tacoma.

King, built in Tacoma in 1946, is powered with a 165-hp. General Motors diesel.

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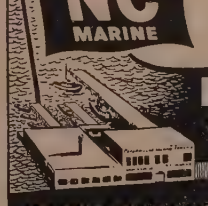

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Barbour's "TX" Nylon has been developed especially for fishing in the Pacific Northwest and Alaska. We are so sure of the superiority of "TX" Nylon that we want you to prove to your own satisfaction it is everything we say! Just try one or more strips along with ANY OTHER NETTING for one season—we are confident you will soon be back for more! Ask our experienced net men about "TX" Nylon

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VENTURE-

In the National Interest on the High Seas

● *Realistically facing up to the fact that both Soviet Russia and Japan are mounting large-scale fishing operations over the continental shelf of North America in eastern Bering Sea—*

That the United States is doing nothing, so far as the trawl fishery is concerned, to establish historic fishing rights on these productive banks adjacent to the Bering Sea segment of the Alaska coast—

And, worse yet, that the United States has no fishing vessels of size, type and equipment capable of engaging in such a fishery—

An informal group of Pacific Northwest businessmen, naval architects, shipbuilders, fishery operators and venturers is undertaking to do something about it.

They are private individuals, developing an idea, which admittedly they expect to lay before Congress, notably the Senate Committee on Foreign and Domestic Commerce, of which Senator Warren G. Magnuson of Washington is chairman.

● For the moment the group—which likes to call itself "a committee"—is engaged primarily in studying (1) vessel size, design, equipment and cost; (2) economic fishing possibilities; (3) field of operations which would make most effective contribution to the national interest; (4) means of financing the venture.

Tentative thinking, as outlined for *Pacific Fisherman* by men active in the group, runs about this way:

1. The United States has need (a) of knowledge of the economic possibilities of eastern Bering Sea; (b) of establishing historic rights there: (c) of initiating long-range, integrated trawling operations capable of competing with Japan and Soviet Russia in the Pacific; and with Great Britain, Germany, Poland, France, Portugal and the Soviet Union in the Atlantic; (d) of vessels capable of exploring the Bering, Chukchi Sea and Arctic Ocean off the Alaskan coast; (e) of knowledge of the new technique of integrated trawl operation in which the nets are hauled up stern ramps, fish are processed and frozen aboard, and offal and inedible or uneconomic fish are manufactured into fish meal; (f) of vessels capable of conducting oceanographic investigations.

2. High cost of vessel construction and admitted venture character of the undertaking keep it from being bankable as a private project.

3. At the same time the economic aspects and the desirability of testing the resources for their industrial profit potential make it desirable that the venture be undertaken by private enterprise and experienced business management.

4. Without invoking out-and-out subsidy, the undertaking could be granted congressional support along lines something like these: (a) vessel to be constructed by a federal agency to design and equipment specifications agreed upon with the projected private corporation; (b) charter for five years to be granted to the company on a nominal basis, with provisions requiring consistent operation, maintenance, and application of profits to possible purchase fund; (c) option to be given the corporation for five years to purchase the vessel at cost, less payments from profits; (d) in the event of failure of the corporation to exercise its option after five years, the vessel to be returned to the Federal government for use in fishery exploration, gear experimentation, and oceanographic studies.

● At present, members of the working committee include the following: James G. Talbot (Coordinator), Bellingham Cold Storage Co.; Dr. John Liston, Fisheries College, University of Washington; Peter G. Schmidt, Jr., Marine Construction & Design Co.; Philip F. Spaulding, P. F. Spaulding & Associates; A. W. Talbot, Bellingham Shipyards Co.; M. A. Bornstein, Bornstein Seafoods Inc.; Dr. James Crutchfield, Economics Dept., University of Washington; Kjell Dahl, Dahl Fish Co., Inc.; Adm. Nicholas Lidstone, U.S.N. (Ret.); Lowell Wakefield, Wakefield's Deep Sea Trawlers, Inc.; Dayton Alverson, Bureau of Commercial Fisheries; Dr. Alexander Dollar, Dr. Richard H. Fleming, and Dr. Richard Van Cleve, University of Washington.

Other members will be added to the committee, including a representative from Alaska and a representative from the fishing fleet.

Mr. Spaulding's firm is in the process of designing a ship which would fulfill the purposes of this venture. Its design will make provision for an extreme degree of automation, to surpass the capabilities of the versatile ocean trawlers now in use by other governments. The design advances from characteristics incorporated in such vessels as the *Pushkin* and *Fairtry III*.

● The project progresses, and perhaps will be before Congress before the summer recess.

Where did all this start?

In the Advisory Committee to the American Section of the International North Pacific Fisheries Commission.

The beginning is told in *Pacific Fisherman* for December, 1959, Page 17, where it was written:

"Recognizing that its proposal fell outside the U.S. Section's responsibility, the Advisory Committee moved because of its concern over the possible deterioration of the American position in Bering Sea as result of the enormous operations which Japan and the Soviet Union mounted there in 1959.

The advisory recommendation was:

"United States fishing in eastern Bering Sea should be encouraged, and subsidized if necessary, in order to provide research data and to maintain the historic position of American fishing there in the face of exploitation by the Soviet Union and Japan."

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- They're less visible, more elastic in the water.

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The combined strength of myriad nylon filament yarns or spun nylon yarns twisted together explains the world-famous superiority of "Amilan" Nylon Rope, particularly for fishing or mooring.

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German Fishery Policy Seeks Full Utilization of the Seas

By DR. GERHARD MESECK

● Fishery policy of the German federal government and of the Laender governments of Bremen, Niedersachsen, Hamburg, Schleswig-Holstein endeavors to promote the fishing industry because of its great economic importance, particularly in the coastal areas. The federal government of Germany is therefore a member of the International Council for the Exploration of the Sea, and also of the Conventions for the Fisheries in the Northeast and Northwest Atlantic.

Fishery research institutes are maintained in Hamburg and on the Isle of Heligoland, which mainly deal with biological and technological problems of fisheries. For an investigation of the fishing area and a continuous control of the fish stocks the fishery research vessel *Anton Dohrn* is available. Moreover, there exists a Scientific Commission for the Exploration of the Sea, acting as the national link to the International Council for the Exploration of the Sea and consisting of scientists of all fields of natural science, as far as they deal with the sea as an area of life.

With financial assistance from Federal funds and in cooperation with practice and science, research voyages are constantly conducted in order to develop new fishing grounds. Moreover, the fishing fleet is assisted by the three fishery protection vessels *"Frithjof, Meerkatze* and *Poseidon* which are under the control of the Federal Ministry of Food, Agriculture and Forestry. These vessels render medical, meteorological, technical and expert help to the fleet on all fishing grounds.

Each year, the federation makes available considerable means for improving the development of the fishing vessels, for education and economic advice to fisheries. Moreover, it sees that special regard is paid to the interests of the fishing industry, whenever legal, financial, economic and commercial-political measures are taken.

Owing to the federal structure of the Republic of West Germany, close cooperation exists between the Federal government and the Laender-

German Motor "Cutter",, the smaller type of modern deep sea fishing craft with length of 86', about 85 gross tons, powered with a 280-hp. Deutz diesel; equipped with echosounder, echograph, radio direction finder, wireless, radiophone, hydraulic trawl winch and steering engine.

governments in all questions relating to the fishing industry. The Federal government, however, has the main responsibility for all measures taken for the promotion and improvement of the fishing industry. All international fishery affairs are exclusively dealt with by the federation. This also refers to the problems resulting in the recent years from the development of the international law of the sea and cooperation with FAO, OEEC, European Economic Union and International Council for the Exploration of the Sea for implementing the regulations of the fishery conventions.

The Federal government of Germany definitely recommends the extensive maintenance of the freedom of the sea. It supports the opinion that the optimum exploitation of the living resources of the sea for the benefit of mankind will only be secured if the common use is unlimitedly maintained and not restricted by any unilateral national actions.

The hydrographic and biological bases of sea fisheries are so manifold, owing to the specific character of the sea as an area of life, that great fluctuations in the fish stocks have always to be reckoned with. This refers to the habitat of the individual species as well as to the size of the populations.

With the increasing progress in the knowledge of the sea, and of fishery research and technique, it will be necessary that the fishing fleets of the various nations have access to the widest possible area, if in the long run an economic exploitation of the fish stocks is to be secured. Regional problems of overfishing, frequently supported by very individual interests of the coastal states, should not lead to establishing barriers on the sea.

The Federal government of Germany is, at any rate, of the opinion that all problems concerning the most intensive possible exploitation of the sea might be solved satisfactorily by means of fishery conventions. In view of the hunger existing in the world it might even be decisive within the next few decades, that the sea provides an ever increasing production of animal protein for human consumption. The community of nations would, therefore, render a poor service to themselves, if unilateral national interests prevented the most intensive exploitation of the resources of the sea.

REMINDER TO FISHERMEN

Careful, please, of underseas cables

A plea to fishermen for caution in areas where underseas cables lie on the ocean floor is brought out in the Bell System exhibit at the National Fisheries Institute Convention in Miami Beach.

To show the damage that can and has been done, a piece of cable—frayed and torn by a trawler—will be displayed at the exhibit. It shows the dangers of fishing gear getting tangled with cables and causing breaks.

When this happens, what results?

Fishermen suffer loss of gear, loss of catch, loss of time.

The public suffers because of delayed overseas communications. Hundreds of thousands of dollars may be involved.

Also to be seen at the exhibit is the story of a cable-laying project, from planning and manufacturing to operation and maintenance. Visitors to the display get a first-hand glimpse of these vital life-lines of communications. An animated map indicates the cable areas in the northern part of the Western Hemisphere.

Look for the
BELL SYSTEM EXHIBIT

If you're going to the National Fisheries Institute Convention, The Fontainebleau, Miami Beach, Florida, April 30-May 3, look for the Bell System exhibit, Booth 11. See what goes into laying an underseas telephone cable.

BELL TELEPHONE SYSTEM

Off-Shore Fishing Control Measure Passes in Alaska

● Alaska's first legislative session following the state's assumption of control over its fisheries closed late in March with comparatively little new fisheries legislation enacted.

Most of the groundwork required for state administration of fisheries had been laid at the 1959 session, and the general disposition was to give full opportunity for trial before making changes.

Two controversial measures affecting fisheries went through final passage in the closing days of the legislature. These were the Offshore Fishing Control Bill and that requiring applications for fishing licenses be made in person in the area where the license will be used.

● As it finally emerged from committee and passed the Senate by a vote of 15 to 2, the high seas fishing control bill forbade the landing in Alaska of migratory fish and shellfish taken on the high seas if they were not taken in conformity with the Alaska regulations applicable within territorial waters.

The bill was originally introduced by Peter Deveau of Kodiak and was widely characterized in the debate as designed specifically to limit the King crab operations of the Wakefield interests, the largest producers of this species. The measure would apply to the Wakefield operations on the high seas the 30-pot limit per vessel prescribed by the Alaska fishery regulations for fishing in state waters. The Wakefield company contended that it is not economically feasible to operate large offshore King crab vessels on a 30-pot gear limit. This would appear to make it possible that the King crab resources outside territorial waters could not be utilized by Americans.

The high seas control bill as passed was modified in several significant points, among them being a "finding of fact" on which the need for the legislation was based. This finding says:

"Conservation regulations should not be promulgated to impose economic sanctions."

This declaration would appear to have been inserted for the dual purpose of imposing a mandate on the Board of Fish and Game, and to clear the measure of the onus which had been heaped upon it as a punitive measure directed specifically at the Wakefield interests.

Another late amendment to the measure specifically authorizes — but does not direct — the Board to define "adjacent high seas areas"; and to define "migratory fish and shellfish."

The bill saves from its application the catching of salmon on the high seas under federal law; and the application of laws prohibiting the taking of salmon on the high seas by means of nets.

Some observers feel that the law is somewhat ambiguous in its application to halibut, which are under international authority, but are not saved from application of the bill.

● The other controversial fisheries bill, requiring that applications for fishing licenses be made *in person* and in the area where the license would be fished, passed the Senate without a dissenting vote.

As originally proposed, the bill would have required that application in person be made between Jan. 1 and April 15 of each year. This proved highly objectionable to Alaskans as well as to non-residents, and was eliminated by amendment. The measure as actually passed permits the personal application to be made in the area where the license is to be fished on any business day of the calendar year prior to use of the license.

A.P.A. Plans Regional Headquarters in Alaska

Establishment of regional headquarters of the Alaska Packers Association in Alaska over a period of two or three years was announced in March by Aubin Barthold, president.

The Alaska regional headquarters will be in Anchorage. In making his announcement, Mr. Barthold said: "We plan to have a year-round staff living in Alaska to cooperate closely with the people and government of the new state. This new organization also should provide more efficient coordination of our Alaska fishing and cannery operations.

"According to present plans, 10 of our people, together with their families, will move to permanent homes in Alaska before the start of the 1960 salmon fishing season. Four of this staff will constitute the first employees of the regional headquarters in Anchorage, while the balance will move to our Kodiak area office in the city of Kodiak. Additional area offices are contemplated, and enlargement of the Anchorage staff is planned for 1961.

Alaska Packers Association operations are located at Nushagak, Naknek, Kvichak, Egegik, Ugashik and Pilot Point, all in Bristol Bay, and at Chignik, Larsen Bay, Kodiak, Cordova and Ketchikan, Alaska and Blaine, Wash. According to present plans, company headquarters will remain in Seattle.

Union Fishermen's Board Of Directors Changed

Broad changes in the personnel of the Board of Directors of the Union Fishermen's Cooperative Packing Co., Astoria, Ore., were made at the mid-March stockholders meeting, first since Nick Bez of Seattle acquired control of the corporation.

Carl Moberg, long-time president of the company, continues in that office. Rolf Ostrom, former general manager, was named executive vice president. W. R. Thrall was designated secretary. These three, with Mr. Bez and Mrs. Oscar Haglund comprise the new board.

Mr. Thrall formerly was secretary of the Columbia River Packers Association, Astoria, but resigned several months ago to become an officer of West Coast Air Lines, of which Mr. Bez is president.

Famous Electronic Engineer Studies Pacific Fisheries

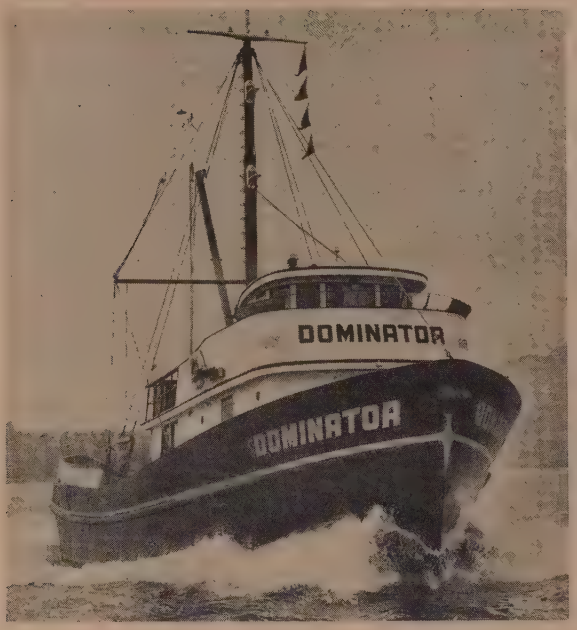
Ralph Eide, chief engineer of Simonsen Radio A/S, Oslo, Norway, spent some time on the Pacific Coast of the United States and Canada in March, studying the application of Simrad electronic instruments produced by his company to the fishing problems of the Pacific.

Mr. Eide was the author of "Locating Fish with the Echo-Sounder", in last October's *Pacific Fisherman*.

He was met in Los Angeles and accompanied up the Pacific Coast by Ted Jules of Viking Equipment Co., Seattle firm distributing Simrad equipment, which includes the Simrad white-line echo sounder and its several models of sonar equipment for horizontal detection and location of fish schools.

The Correct Name Is Westerbeke

In the advertisement for Momoi Co., Inc., which appeared in *Pacific Fisherman* Yearbook for 1960, the name of the Momoi distributor in Boston was incorrectly given. The correct name of the supplier is Westerbeke Fishing Gear Co. Inc.



DOMINATOR is the name of this brilliant 78' steel fishing vessel built during the winter by A. C. Benson, Vancouver, to be operated by Monarch Fishing Co. for Anglo-B. C. Packing Co. Owners are William Logan, Ken Abbott and Sid Winberg. William Reid was her architect. She is of double-chine construction and is powered by twin 440-hp. General Motors diesels, working in tandem. She is the elder fleetmate of SWIFT-SURE, also built by Benson, for Bob Karliner, Ken Munro and Harry Thomson.

Shrimp Packing Steps Up Before Rentals Rise

Pacific shrimp canning is expected to prove quite active during the months of April and May as packers make an effort to put up substantial volume before the new rental rates on peeling machines go into effect June 1.

Machine peeling costs are due to advance one-third at that time, and as this charge is a major cost factor in Pacific shrimp packing there is substantial incentive for late spring canning.

Quality of the shrimp from the recovery standpoint was said to be improving as March advanced and operations were being re-activated on the Columbia River and Grays Harbor.

There is some reason to believe that Pacific shrimp packers are protesting what they contend are discriminatory variations in shrimp-preparing machine rentals, and that what they contend are unrealistic difference between rates in different parts of the country are being called to the attention of the Federal Trade Commission.

C.R.P.A. Adds Pair To Administrative Staff

Two additions to the staff of the Columbia River Packers Association, Inc., in general administrative and sales departments, were announced late in March by T. F. Sandoz, president, with the appointments of Theodore T. Bugas and Robert P. Kearney.

Mr. Bugas attended the University of Colorado and is a graduate of the University of Notre Dame School of Law. For the past several years he has served as an agent of the Federal Bureau of Investigation. Mr. Bugas has been a resident of this Columbia River area for nine years, with residence in Hammond, Ore. With his legal training and broad experience, he will assume general administrative duties in the company's home office in this city.

Mr. Kearney is a native Astorian, son of Paul Kearney, present Oregon U. S. Marshal. He has worked for the company in its Astoria and Alaska canneries during many summer vacations. For the past five years he has been connected with the sales staff of the Reynolds Metals Company. He will be active in sales work for the company. Mr. and Mrs. Kearney and their two daughters will establish their home in Astoria.

G. Christo and A. Kalpokoff Die in Earthquake

The terrible earthquake that killed are estimated 12,000 persons at Agadir, Morocco, also probably took the life of George J. Christo and Andrew Kalpokoff, his assistant, both well known in the California fish processing industry.

Mr. Christo, 59, and Mr. Kalpokoff, 48, were in Morocco setting up a sardine processing plant for the Login Corp., San Francisco. No word has been received from them since the quake, and their deaths were announced by the American Embassy at Rabat. They had been staying at the Saada Hotel, known as the most luxurious building in Agadir, which was leveled by the earthquake.

The men had left last fall to set up machinery from Mr. Christo's Northern Packing Corporation plant, which had been dismantled at its site at Pier 92 in San Francisco and shipped to Agadir.

Mr. Christo started in the fish business in Santa Cruz, later on becoming one of the founders of the Custom House Packing Co., Monterey. In 1935, he, John Vallianos and Charles Broad formed the Farallone Packing Co., Pier 92, San Francisco. In 1937 Mr. Christo withdrew from this organization and founded Northern Packing Co., Pier 92, San Francisco, and shortly afterward, Winged Victory Products Corporation, also at Pier 92 San Francisco.

The long sardine "drought" had long kept these plants in idleness.

F.I.P.'s Port Graham Cannery is Destroyed

One of Central Alaska's truly notable canneries was wiped out early in March when fire destroyed the Port Graham installation of the Fidalgo Island Packing Co.

Vance Sutter, president, reported that the only structures remaining were a bunkhouse and the carpenter shed. Fortunate wind direction made it possible to save some 40 fishing boats pulled out of the water on the company ways.

The cannery, which mounted one line for 1-lb. talls and one for ½-lb. flats, was a thoroughly modern plant, with all-electric machinery drives, 10 tons daily ice capacity, and a fish house built only two years ago and equipped with sea water chilling facilities for 50,000 salmon.

All of this was lost.

Port Graham was to have been the operating cannery for a five-company consolidation during the 1960 season, with fish from Alaska Year-Round Canneries, Pacific American Fisheries, Port Chatham Packing Co., and Whitney & Co. being canned in the Fidalgo Island Packing Co. plant.

As result of the fire, the Alaska Year-Round plant at Seldovia will be activated under the management of J. J. Lind. In the original program it was scheduled to be the stand-by plant.

C. D. Day Advances With Alaska Packers Assn.

C. D. Day, for some time assistant to the president of the Alaska Packers Association, in March was advanced to the board of directors of the company and elected Vice President—Production, it was announced at Seattle by Aubin Barthold, president.

"I always carry a couple of cases of

WD-40
in my supply room"

says **JOHN ALEXANDER**, engineer on the big tuna seiner **SUN JASON.**

"WD-40 is the best rust inhibitor I've found. I use it everywhere. For instance, I spray it on electrical motors. It keeps them running, saves me work, worry and expense. The spray cans are very convenient. I carry one in my pocket most of the time, and use it as I go. I never sail without a case or two in the supply room".

The *Sun Jason,* fishing for Breast-O'-Chicken Tuna, is based in Paita, Peru. Commanded by Capt. Jack Borcich, she is 130 ft long, all steel, one of the biggest vessels fishing South American waters.

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Rocket Distributing Co., 1485 Bayshore Drive, San Francisco 24, Calif.
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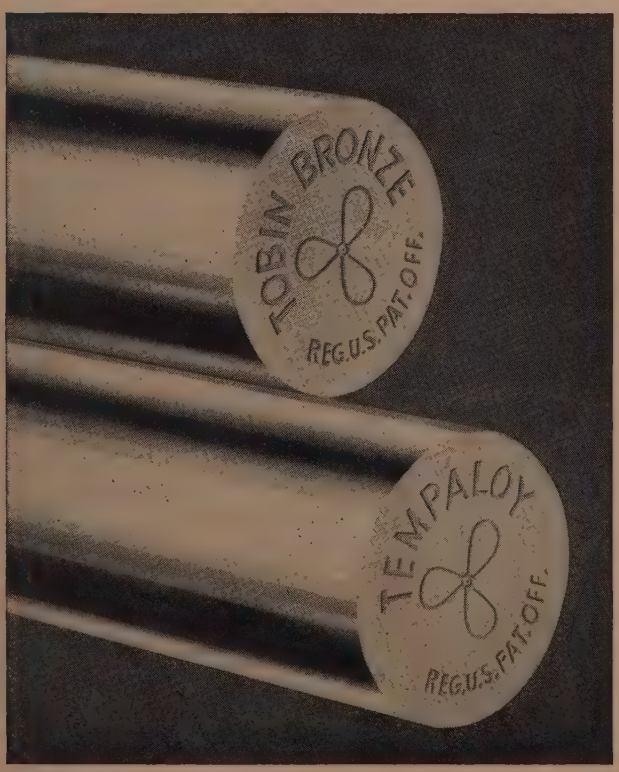

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TEMPALOY®-917, nickel-aluminum bronze shafting, was developed by The American Brass Company for uses requiring extra-high strength. Repowering with higher horsepower engines often means replacing original shafting, too. Tempaloy usually provides the needed extra strength with no increase in shaft diameter —saving costly alteration of bearing, stuffing box and housing assemblies. Features: toughness and high yield strength—high resistance to shock—excellent corrosion resistance—lighter weight—special straightening—close diameter tolerances—individually wrapped and trade-marked—reasonably priced.

Both Tobin Bronze and Tempaloy propeller shafts are available through leading marine supply distributors. For detailed information, see your distributor or write: The American Brass Company, Ansonia Division, Ansonia, Conn. District Sales Offices: Los Angeles, Calif., at 14900 Garfield Ave., Paramount—San Francisco 4, Calif., at 120 Montgomery St.—Seattle 1, Wash., at 1311 Tower Bldg. 5988PF

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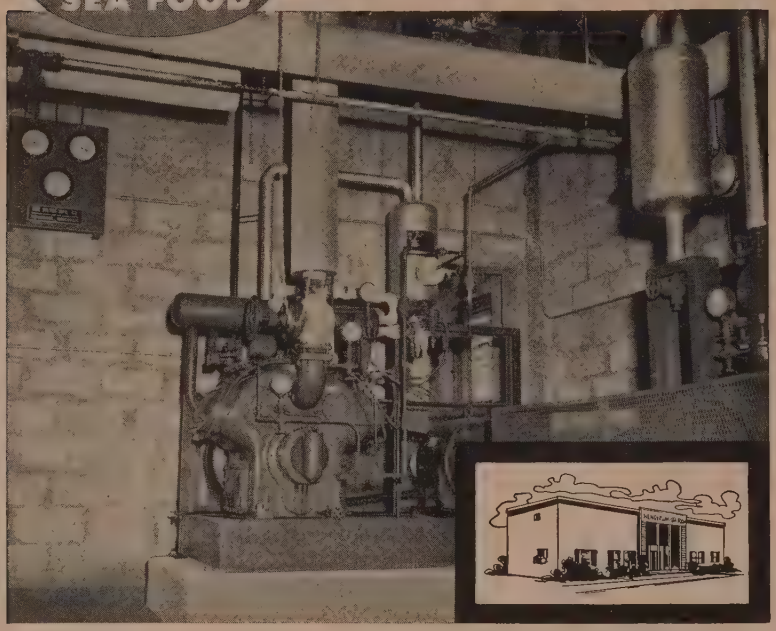
HENDERSON'S SEA FOOD

Value, variety of product, and aggressive research in developing new products are Henderson policies.



View of the Vilter VMC compressor installation at the new Henderson Seafood plant at Miami, Florida. Inset is exterior of new plant. Henderson offers a full menu choice—shrimp, sea food rolls, lobster cutlets, oysters, breaded scallops, fish fillets, among others.

Fresh, nutritious, tasty sea food from Henderson's is eagerly sought by restaurants and institutions. The strict quality control exercised continuously by Henderson to provide sea food for the finest cuisines is paying off in satisfied customers who have confidence in the product. The answer is quick-freezing and packing at the source while the product is sea-fresh, and under the most sanitary conditions.

Vilter refrigeration is playing an important role in providing ideal "cold-protection" during storage and processing . . . guarding freshness and flavor.

The new Henderson plant, with 20,000 pounds daily freezing capacity, is Vilter throughout and is served by a 6-cylinder, 2-stage VMC compressor and a single stage VMC standby unit. The plant is made up of a blast freezer, held at 30 degrees below zero, zero storage room, and cooler held at 36° F.

Why not consult with Vilter for help in planning your refrigeration layout on your boat or shore processing plant?

Vilter® refrigeration air conditioning

The Vilter Manufacturing Company
Milwaukee 7, Wisconsin

Air Units • Ammonia and Freon Compressors • Booster Compressors Baudelot Coolers • Water and Brine Coolers • Blast Freezers Evaporative and Shell and Tube Condensers • Pipe Coils Valves and Fittings • Pakice and Polarflake Ice machines.

Write for your copy of Bulletin 817, Vilter VMC Ammonia Compressor to Dept. PF-910.

"Exploding" Tuna Growth Noted by Traveller

"Exploding" interest in tuna fishing and packing, particularly in the Mediterranean Area, is reported by Robert L. Stix, president of Robert L. Stix, Inc., North American sales representative for foreign fishery producers, who returned in mid-March from more than two months of travel through Pacific producing areas.

Mr. Stix stopped on the Pacific Coast briefly before continuing to his New York headquarters. His 1960 itinerary took him to Japan, Taiwan, Australia and New Zealand.

North Africa, Spain, France, Italy, Jugoslavia, and other countries in the Mediterranean Area are expanding their tuna operations in remarkable manner, Mr. Stix finds. Part of this growth is built upon landings in those countries by the Japanese Atlantic and Indian Ocean fleets; but a significant and growing percentage of the material is being produced by domestic tuna fishing vessels.

Most of the tuna is being canned for domestic consumption in the countries in question, or within the Mediterranean Basin.

On the subject of the far Pacific fisheries at present, Mr. Stix had this to say:

"Shrimp production continues to expand and flows to the area where the prices are highest. Lobster tail exports in West Australia are up, but in South Australia continue to decline because of increased local consumption and no increase in total production. In New New Zealand production is stable at levels below a few years ago.

New fisheries are developing but the cost of bringing fisheries into production in new areas is substantial and with increased prosperity to many countries it is difficult to get sufficient fishermen to man the boats. The prime problem in many areas remains lack of capital for the fishing industry and government interference rather than assistance. Where conditions are favorable and fishermen can make substantial returns, obtain the necessary capital and have a minimum of interference with their activities the expansion of the fisheries has been taking place at a surprisingly rapid rate, and with considerable success."

Hal Johnston Passes

Reed Andrews, Pacific Northwest representative of the Stecher-Traung Lithograph Co., reported recently to the Pacific canned salmon industry the sudden passing in San Francisco of Hal W. Johnston, who was for many years widely known and well regarded among salmon canners.

FOOD FISH MARKETING

Section of PACIFIC FISHERMAN —

News and Views of National Trade in Fish and Shellfish

April 1960

Salmon to See and Talk About at the 22nd Salmon Cutting held in Seattle March 15. Here's an event that brings out the men in the business, from the presidents to the production men.

Salmon Cutting Examiners' Pooled Opinion:

Better Than We Thought

● Pooled judgment of some 146 qualified cannerymen, based on examination of nearly 700 cans of salmon from the 1959 pack, gave them an overall rating of somewhat better-than-average.

This was at the 22nd Annual Canned Salmon Cutting, held at Seattle March 15 under the auspices of the Northwest Branch of the National Canners Association.

There was no wild enthusiasm, mind you, but in general the judges found the pack, as evidenced by their appraisal of the substantial sample, to be somewhat above rating which had been given it earlier.

Broadly, workmanship was given a good mark, despite some tendency toward irregularity in salting and in weights. There was notably less criticism than usual in respect to filling and cleaning.

Color and oil got rather favorable ratings. Soundness was never seriously questioned, although there were reports of "abnormal" odors which could not be associated with spoilage. Some cans showed sulphide discoloration, which appeared generally associated with one end of the can—whichever was up, and thus in contact with oxygen in the headspace during retorting. However, here again the results of the broad sampling and examination gave a rating somewhat above earlier expectations.

● Basically, the principal faults attributed to the pack under examination seemed to be those associated with striving to keep costs within the scope of possible price.

While agreeing that such striving was necessary in today's operation, commentators at the cutting set the maintenance of quality as *essential*, not only to salmon's standing as a food product but also in capitalizing fully on the industry's investment in the Canned Salmon Institute promotion and merchandising program.

Walter V. Yonker, director of the N.C.A. Northwest Branch pulled no punches in his comment on this point:

"Quality must not be compromised. Only through quality, kept high and never compromised, can you profit. Workmanship is important, but flavor and odor are more than that. They must be good always, *and in all ways."*

He emphasized also the necessity for close control of weights, to avoid needless waste of expensive fish on the one hand, and of offending customers—who are also expensive to get

Quality
Pink Salmon
KELLEY-CLARKE CO.
2460 6th Ave. S.

They Add Up
To A Lot of Sales!

Oceanic
SALES COMPANY
3302 SMITH TOWER
SEATTLE 4, WASH.

A Red Salmon Judging Team at the Salmon Cutting. From the left: Eric Bulmer, Ouzinkie Packing Co.; Alfred Oslin, Fidalgo Island Packing Co.; Lloyd V. Guffey, Pacific American Fisheries; Kenneth Williams, Dehn & Co.

—on the other.

Aubin Barthold, president of the Association of Pacific Fisheries, who presided, touched a point with a sharp sentence: "It's up to us to keep the quality of our product up to that of our promotion" — this after a brief presentation of the new films and recipe booklet developed by the Canned Salmon Institute in cooperation with the U.S. Fish and Wildlife Service.

Leo T. Kreielsheimer, chairman of the Institute's executive committee, keynoted its current objective, saying: "True, our pack *is* sold; but we want to sell our customers on the desirability of our product, even though it *is* scarce."

From Cole & Weber, the Institute's agent in its promotion, Sid Copeland and Lee Jacobi brought a thought: The Industry must keep its quality high, its fish fresh, its workmanship good; and its merchandising as sound as the fish it sells.

● Judging of the more-than-650 cans of salmon was handled by 32 committees each composed of four or five men, all qualified specialists in the field, and with the committees generally balanced so the various operating phases were broadly represented.

General species chairman for the Chinooks and Kings group was Vern O. Larson, Columbia River Packers Association, who was assisted by Robert F. Morgan, Western Fisheries Co.

Judging committees for Sockeyes and Reds, the largest category, were supervised by R. O. Pierce, Whiz Fish Products Co., assisted by K. Alan Dehn, Dehn and Co.

Coho committees were supervised by Robert D. Pride of the Deming & Gould Co., with Robert E. Dignon of Northern Products Corporation as assistant.

Eldon Grimes of Hydaburg Cooperative Association was species chairman for the Pinks, with Eilert Holbeck of Petersburg Processors, Inc., as assistant.

Chum committees worked under the general supervision of W. C. Hingston of Washington Fish & Oyster Co., aided by Wayne Axelson of Pacific American Fisheries.

C.R.P.A. Assigns Seeborg To Eastern Sales Post

Kenneth G. Seeborg was promoted in March to the position of eastern sales representative of the Columbia River Packers Association, Inc. Announcement by T. F. Sandoz, president, of the company, said also that the eastern sales offices will be maintained in Philadelphia.

Mr. Seeborg has been connected with the sales staff of the company for the past seven years. He has had broad training and sales experience in covering several of the company's major markets. He was for one year located in New York City and recently has been handling sales in some of the West Coast and Gulf Seaboard markets.

By having Mr. Seeborg reside in Philadelphia, he will be in a position to give better service to the company's brokerage organizations and customers in the major eastern markets.

And Stanley said: "Mr. Dehn, I presume." Emery R. Stanley, sales manager of Frank B. Peterson Company, left, and Karl Dehn of Dehn & Co., candidly camera-ed at the Salmon Cutting.

Kelley-Clarke Acquires Dehn's Domestic Brokerage

Acquisition of the domestic brokerage business of Dehn & Co. by the Kelley-Clarke Co., Seattle, became effective April 1 in one of the most interesting and significant transactions of years in canned salmon selling.

Walter C. Meredith, manager of the Kelley-Clarke Co. Canned Salmon Department, said that the arrangement included distribution of the *Sea Feast* and *Honey Boy* brands which Dehn & Co. has featured for Pinks and Chums, respectively.

Most of the field brokers who have served Dehn & Co. in the domestic market will be retained by the Kelley-Clarke Co.

Karl Dehn, head of Dehn & Co., said the firm would continue and expand its activities in the canned goods export field; and that Marine Foods Packing Co., its related concern, would continue to handle imported fish and seafoods. The companies will continue to make their headquarters in the Colman Building, Seattle; where K. Alan Dehn is secretary-treasurer and sales manager and Kenneth Williams is assistant sales manager.

"Strategic Selling" Only Salmon Trade Feature

Canned salmon selling was a clean-up operation all through Lent, with very, very little left to be shipped, let alone *sold*, despite the $1 decline in Pink halves.

Such trading as passed seemed to have strategic overtones, probably designed to develop markets in new areas.

Consumption of the higher-priced varieties was slow, as might be expected at the prices necessitated; and at the relative bargains available in tuna.

Seattle Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries Market News Service.

Items and Packages	Per Case
Puget Sound	
Sockeye, halves	$24 -25
Sockeye, quarters	14 -14.50
Alaska	
Red, talls	36 -38
Red, halves	23 -25
Pink, talls	24 -25
Pink, halves	13.50
Pink, 4-lbs. (12)	-25
Coho, talls	31
Coho, halves	18.50-19
Coho, quarters	-11.50
Chum, summer, tall	-22
Chum, summer, halves	12 -12.50
Chum, 4-lbs. (12)	-23
Chinook, talls	31 -32
Chinook, halves	24
Columbia River	
Blueback, halves	25 -26
Blueback, quarters	14 -14.50
Chinook, fancy, halves	25 -26
Chinook, fancy, quarters	-14.50
Chinook, choice, halves	17 -20
Chinook, choice, quarters	-11.75
Silver, halves	18.50-19
Silver, quarters	11.50-12.25
Tuna, Northwest Pack—	
Albacore, fcy., 7 oz.	12 -14
Yellowfin, s/pack, 7 oz.	11.00-
Yellowfin, chunk, 6½ oz.	9 -10
Tuna, Featured Pack—	
Albacore, fcy, 7 oz.	14.85-15.25
Albacore, fcy., 3½ oz.	9.10- 9.15
Albacore, chunk, 6½ oz.	10.50-13.50
Albacore, chunk, 3 oz.	6.50- 8
Lightmeat, fcy., 7 oz.	14.25
Lightmeat, fcy., 3½ oz.	8.55
Lightmeat, chunk, 6½ oz.	11.00
Canned Crab—	
Dungeness, 24, 6½ oz.	12.50
Dungeness, 3¾ oz.	7.60
King, fcy., 7½ oz.	31-
King, std., 24, 7½ oz.	15.60-16
Alaska Shrimp—	
Tiny, 24, 4½ oz.	7.25- 7.50
Small, 24, 4½ oz.	8.50- 9.00

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is pleased to announce its appointment as exclusive sales agents in Chicago, Illinois, Indiana and Wisconsin for 40-Fathom Sales Corp.

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Seattle, Wash.
Since 1868
Producers ★ Packers ★ Distributors
Canned ★ Fresh ★ Frozen ★ Seafoods

Shiel and Sjoblom at the 22nd Salmon Cutting. Walter P. Shiel of W. P. Shiel & Co., left, chats with Karl V. Sjoblom.

146 Judges Who Did the Work—

● Judges whose examinations and attention made the 22nd Annual Canned Salmon Cutting an effective instrument for improving quality, and the companies with which they are affiliated included:

Alaska Packers Association — Lee Higgerson, Ronald Tullis, E. E. Hill, Jack Wolf, Frank McConaghy, Andrew Andersen, Alf Nelson, Vernon Hilliker, John Cuthill, Lyman Day, Vernon Paulson, Olaf C. Knutson, Arthur James, Herman Bisom.

Alaska Year Round Canneries Company — J. W. DeChamplain, William G. Lind, Arthur D. Aspaas.

American Packing Company—Jack Bowman.

Bellingham Canning Company—M. C. Bristol, W. E. Welsh, Robert A. Welsh.

Chignik Fisheries Company — Ray McFarland.

Columbia River Packers Association, Inc. — Chris Johnson, Claire Egtvedt.

Dehn and Company, Inc. — Ken Williams.

Deming and Gould Company — Philip Campbell, C. V. Hazel.

Dressel-Collins Fish Company — Frank Dressel.

Egegik Packing Company — James Jacobsen.

Emard Packing Company — S. T. Olson, Forrest H. Johnson, J. B. Groh.

Excursion Inlet Packing Company — Kenneth E. Grove, Robert L. Syre, R. A. Eggleston.

Fidalgo Island Packing Company—Roy Hendrickson, Alfred Oslin, John Mitchell.

Food Specialty Company—Edward Fisher.

Gavin Brothers, Inc. — T. Jay Gavin.

Haines Packing Company — Ed Thorell, Ivar A. Welle.

G. P. Halferty and Company — Wally D. Johnson.

P. E. Harris Company, Inc.—Walt Tobiason, Don Rawlinson, Eldon Nicholl, M. F. Stockwell, A. J. Drtina.

Hood Bay Salmon Company — Ed H. Bowers.

Hydaburg Cooperative Association —James J. Connors, Jr.

Kadiak Fisheries Company — Willard Trimble, Donald Mullis, Earl Sifferman, W. R. Sparring, Otto Olsen.

Keku Canning Company — Erling Malmo.

Kelley-Clarke Company — W. C. Meredith, C. W. Frankland.

Klawock Oceanside Packing Company—W. F. Beveridge, John R. Conner, Lars Nerland.

Libby, McNeill and Libby—D. H. Zeiger, Lee R. Swanson.

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McGovern and McGovern — Fred Mutal.

Nakat Packing Corporation—H. T. Englund, Tom B. Templeton, H. F. Friele, Gordon F. Hecker, Fritz Frolich, H. F. Gundersen, Robert Keegan, Norman Ytterdal.

New England Fish Company—Randall Beard, C. H. Ashdown, Peyton A. White, Gunnar Johnson, Sun W. Yip, Howard W. Lee, Norman Haugland, C. P. Skogmo, G. F. Boothby, J. E. Forsell, T. R. Sullivan, Tom Andersen, Douglas Rogers.

Northern Products Corporation — Leif Eriksen.

Northwest Reconditioning Company—Clarence Gibbons.

Oceanic Sales Company — James Stephens.

Ouzinkie Packing Corporation — Eric Bulmer.

Pacific American Fisheries, Inc. — Harold B. Norberg, Lloyd V. Guffey, James J. Johnson, J. A. Gillis, Joe Schmotzer, Andre A. Mattson, Marvin C. Snyder, R. M. Thorstenson, Lloyd R. Munkres, Carl F. Anderson.

Parks Canning Company, Inc. — Henry Benton, Justin V. Strom, Martin Hegeberg.

Pelican Packing Company—Walter Husfloen, Walter Oliver, Judy Hageman, George Crisman.

Petersburg Processors, Inc.—A. L. Rogers, Ray Wood.

Frank B. Peterson Company—E. R. Stanley.

The Puckett Company — David Puckett.

Queen Fisheries, Inc.—C. B. Williams, LeRoy Peterson.

Raymar Sales Company — H. Ray Clark.

Safeway Stores — F. L. Summers, Jerry Wickland.

San Juan Fishing and Packing Company — Merle Tappendorf, Ivan L. Fox, Marvin Goodall, Al O'Leary.

Scheerer Canning Company, Inc.—Eugene Scheerer.

Wards Cove Packing Company — Jerry Steele.

Washington Fish and Oyster Company — Lawrence O. Solem, E. H. Algyer.

Western Fisheries Company—Chas. H. Wright, John J. Green.

Whitney and Company—E. F. Burgess, Milton A. Smith, John K. Lyons, Jack Krebs, Denton Sherry.

Whiz Fish Products Company — Thomas A. Conrad, Edwin A. Hansen, R. E. Silver, Kay Goodman, Mike Goodman, Arthur Suite, Stan Bear.

Yukon River Fishermen Co-Op Association—John T. Emel.

"Pretty good at that; Eh, Boss"—Superintendents Kay Goodman, center, and Mike Goodman try to convince President Charles D. Alhadeff that the Whiz Fish Products Co. cans graded high at the Salmon Cutting as result of their efforts. Thomas Conrad looks on hopefully from behind.

Japan Tuna Exporters Deal With U. S. Buyers

Japan Frozen Tuna Manufacturers Association is pinning high hopes on coming negotiations with principal American frozen tuna buyers, looking to possible revision of the general conditions governing the export trade in this commodity.

Revisions sought by the Japanese are: (1) limiting claims to those covered by California state inspection rules; (2) right to have a representative of the Japanese shippers observing at the inspection; (3) establishment of a 100% L.C. opening system; (4) price basing on a CIF or a C&F system instead of the current FOB system, which would be abolished.

Burk-Fidalgo's Bellingham Cannery Facilities Improved

Burk-Fidalgo's salmon canning facilities at Bellingham will be expanded and improved before the 1960 fishing season by construction of a new fish dock, enlargement of the fish house, and dredging by the Port of Bellingham to provide a mooring basin for 40 fishing craft adjacent to the plant.

John Mitchell, general manager, points out that the work is not being undertaken for the 1960 season alone, but as part of a longer-range program which looks ahead basically to the better prospects of the 1961 and 1962 seasons.

The boat basin adjacent to the plant formerly was limited to a few small boats, principally yachts; but in future will provide good facilities for gillnetters and purse seiners.

Fibreboard Products Adds Tube-Can Division

Formation of a completely new manufacturing and merchandising unit, the Tube and Can Division, was announced by Fibreboard Paper Products Corporation today. William H. Ecker was named as general manager of the unit by Jack H. Grady, vice president and general manager, Packaging Group.

TWO GREAT BRAND NAMES IN FROZEN FRESH SEAFOODS

SAN JUAN

Ship Ahoy

FRESHEST FISH IN THE FREEZER

More than 37 Delightful Frozen Seafoods in Both Brands

NOW VACUUM-PACKED STEAKS & FILLETS

IN SAN JUAN'S OWN FLAVOR-SAVOR RETAIL-SIZE PACKAGES

SAN JUAN FISHING & PACKING CO.
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B&W GASOLINE ENGINES
Lathrop
MARINE POWER AT ITS BEST
HIGHEST QUALITY THROUGH SUPERIOR MARINE ENGINEERING
Available from 30 hp to 155 hp
BURMEISTER & WAIN AMERICAN CORPORATION
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VITA FOOD
TRADE MARK
PRODUCTS, INC.
GENERAL OFFICES — NEW YORK CITY
Importers & Exporters — Producers, Packers, Smokers
FISH OF ALL KINDS
Mildcured and Frozen from all Principal Centers of Alaska
SEATTLE OFFICE — 1844 WESTLAKE NORTH

For Top Performance and Economy

Wise Pacific Coast Fishermen Choose

CUTLESS SOFT RUBBER WATER LUBRICATED BEARINGS

CUTLESS BEARINGS IMPROVE THE PERFORMANCE OF ANY VESSEL!

If you fish for a living you know the importance of dependable propeller shaft bearings. The kind that gives years of trouble-free, QUIET operation. The kind that saves shafts and keeps boat out of drydock. That kind is CUTLESS—the soft rubber, water lubricated bearing —the bearing fishermen depend on to keep them fishing.

Buy them from your favorite Marine Supply House or Ship Repair Yard when you haul out. Large west coast stocks, popular sizes. Factory stock to 11½-inch shaft size available overnight by air.

Tuna clipper "Carol Virginia", built by National Steel & Shipbuilding Corporation, San Diego, uses Cutless bearings.

LUCIAN Q. MOFFITT, INC.

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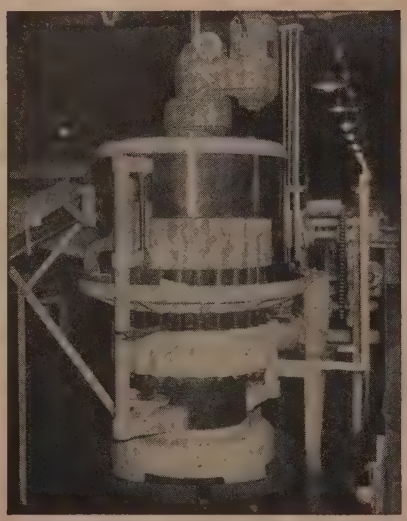
Engineers and National Distributors

B.F.Goodrich *Cutless* BEARINGS

PROPELLER SHAFT

The PAK-FORMER



Leading tuna canners are now using the PAK-FORMER for their Chunk and Grated Style Packs. A variable speed drive permits filling speed adjustments of between 140 and 250 cans per minute. Available to the industry under similar terms as our PAK-SHAPER.

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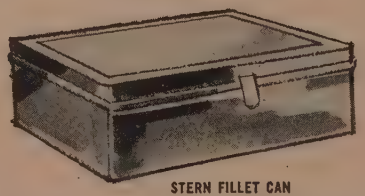

STERN FILLET CAN

1 GALLON CLAM AND OYSTER

This year marks the 150th Anniversary of the Metal Can Industry and the 59th year in which Stern has been producing cans to bring greater efficiency and economy to business.

STERN CAN COMPANY, INC.

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Japan Sets 1960 Quotas For Frozen Fish Export

Quotas for the principal frozen fish exports of Japan were established in March for the period starting April 1.

In considering the quota figures it should be understood that there may actually be two distinct quotas for the same product, and that these may not correspond exactly, although the two sets of quotas as planned in cooperation are designed for close coordination of activities. The two types of quotas which may appear for the same commodity are: one determined by the exporters association and allocated among trading firms; and the other a target fixed by the manufacturers' association and allocated among the producers.

Thus the frozen food exporters association early in March announced the 1960 quotas in these amounts:

Frozen Albacore, 30,000 short tons; other frozen tuna, 77,000 tons, of which 55,000 tons is allocated to the United States, and the rest to Italy, Yugoslavia and other countries.

Frozen swordfish, 5,000 tons; frozen scallops, 500 tons; other frozen shellfish, 200 tons; froglegs, 200 tons.

Frozen salmon, 2,000 tons; miscellaneous frozen fish, 5,000 tons.

Of the 30,000 tons of Albacore, it is expected that 20,000 tons will be shipped in the period from April through November.

G. P. Halferty, Pioneer Clam Packer and Seller, Passes

● Guy P. Halferty was a pioneer in the sea food industry of the Pacific, and he took "Pioneer" for his label. He set for it a standard which he never relaxed, as he personally never relaxed until he died in Seattle March 25 at the age of 77.

His father, P. F. Halferty, was the first man to can razor clams 65 years ago at Warrenton, Ore. This was in 1895, and soon thereafter the business moved to Markham, Wash., on Grays Harbor; and thence to Aberdeen and Copalis.

In 1912 Guy P. Halferty, who had worked with his father in the building of the business, bought his father's interest. With James Parks of Grays Harbor he founded the Pacific Fisheries & Packing Co., with canneries at Aberdeen and Moclips, Wash. The two partners established the Western Fisheries Co. cannery at Orcas Island. Later Mr. Parks took the Orcas cannery and Mr. Halferty that on Grays Harbor.

In 1916 Mr. Halferty established a cannery for clams at Cordova, Alaska, and from that time his "Pioneer Brand" emerged as the industry leader. The plant in Cordova was placed in charge of Frank McConaghy of Seattle, still active in its direction, who had joined Mr. Halferty in 1914 as superintendent at Copalis. The Cordova cannery continued under Mr. Halferty's ownership until he sold it, with the plant later founded at Kodiak, in 1959.

After canning clams at Cordova for three years, Mr. Halferty in 1919 entered salmon canning in a large way for the first time, although he had previously engaged in salmon canning on Grays Harbor and Puget Sound; and in 1928 established a salmon cannery on the Columbia River at Ilwaco, Wash.

From Cordova, at the mouth of the Copper River, he swept west to Cook Inlet, where he established a cannery at Snug Harbor in 1923; and to Kukak Bay, where he operated in 1932. Finally, with Mr. McConaghy, he established a cannery at Kodiak in 1937. Known originally as the Frank McConaghy Company, this operation subsequently became one of the Halferty Canneries, Inc.

It was sold, along with the Cordova property and the famous "Pioneer" label, to the Alaska Packers Association in 1959. Early in 1960 Mr. Halferty sold his last remaining cannery—that at Juneau, Alaska—to the Whiz Fish Products Co. A cannery which he established at Ilwaco, Wash., in 1928 had been disposed of several years before. The Aberdeen cannery has been inactive for some years.

Mr. Halferty was a pioneer packer, but perhaps his highest accomplishment was in the field of merchandising. He was a salesman always.

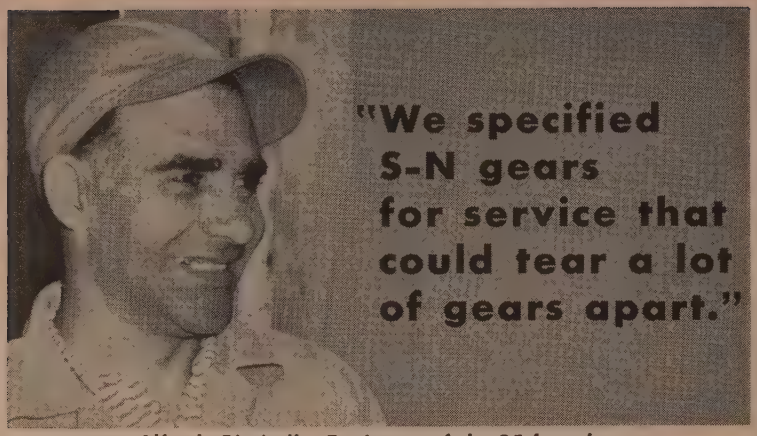
His service to the industry was not confined to building his own business, for he served as president of the Association of Pacific Fisheries, and was the first chairman of the Alaska Salmon Industry. For a generation he was the president of the Pacific Clam Canners Association.

Guy Halferty's last public service was as the founder and only president of the Stream Conservation League, an organization of commercial and sports fishermen dedicated to an effort to awaken the public of the Pacific Northwest and Alaska to the necessity for preserving the purity and productivity of their streams.

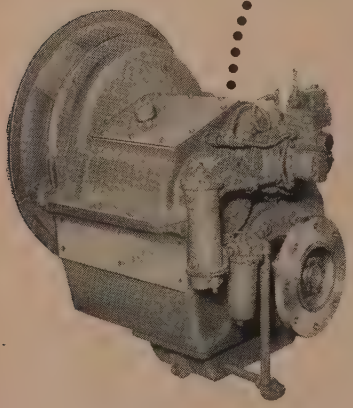
Mr. Halferty was a man of paradox. Though his life was associated with the sea, he came from inland beginnings, being born in Beloit, Kansas, in 1882. Though a commercial fishery operator all his life, he was a dedicated sports fisherman, who has cast his

EDWARD N. NISHIKAWA, representative in the United States of the Japan Canned Crab Sales Company, responding at a luncheon given in his honor by Gotham-Vladimir Advertising, Inc., at the Advertising Club of New York in March 2 for his achievements in strengthening the bonds of friendship between Japan and the United States and for his dedication to the principles of cooperation in international trade.

Mr. Nishikawa has been in New York for three years and was returning to Tokyo to resume his executive duties with the Japan Canned Crab Sales Company in Japan. Left to right: **K. Nishiwaki,** vice president of Mitsubishi International Corp.; **Edward N. Nishikawa,** Managing Director of Japan Canned Crab Sales Company, Tokyo; **Irwin A. Vladimir,** Chairman of the Board of Gotham-Vladimir Advertising, Inc., and **T. Kambe,** Director of Department of Agricultural and Fishery Section of the Japan Trade Center.



says Alfredo Piscitello, Engineer, of the 95-foot dragger, Columbia, of Gloucester, Mass.



"On a big dragger like the *Columbia*, it takes a lot of power to battle the waves and currents off the New England Coast. So we repowered with a 510 h.p. Waukesha, and this called for gears that must stand up in service that could tear a lot of gears apart. That's why we specified S-N Reverse-Reduction Gears. They're really rugged . . . I can count on them when the going is rough." Heed the words of this power-wise engineer and specify S-N gears for your new boat or repowering. See your S-N distributor or write direct. The Snow-Nabstedt Gear Corporation, Hamden, Connecticut

YOUR BEST BUY IN DEPENDABLE GEARS

SNOW-NABSTEDT

Transmission Engineers

FOR OVER HALF A CENTURY

flies for trout over much of the world. Having fished with rod and reel over all of the Pacific Northwest, Alaska and British Columbia, in his later years he made a number of trout-fishing expeditions to the famous sport fisheries of Chile and New Zealand.

One of the great traditions of the Pacific fisheries died with Guy Halferty at Seattle March 25.

Fish Divoteer's Spring Tournament April 22

C. E. "Bud" Moore, Fisheries Division, Branch of Market Development, U. S. Fish & Wildlife Service, Seattle, new president of The Fish Divoteers, has announced that the organization's 22nd annual spring golf tournament will be held Friday, April 22, at the Rainier Golf & Country Club in Seattle. The fall tourney will be played on the same course Friday, September 9.

Mr. Moore also announced the appointment of the following committees for 1960:

Sponsors Committee — E. H. "Al" Algyer, Washington Fish & Oyster Co., chairman; Fred Pugliese, Northern Pacific Railroad Co., and Al Irvine, Ivar Wendt.

Entertainment — Jim O'Connor, Great Northern Railway Co., chairman; Norwood Licklider, Missouri Pacific Lines, and Fred Menard, Minneapolis, Northfield & Southern Railway.

Tournament — Harry Backman, Sayre & Toso, Inc., chairman; Barney McCallum, Griffin Envelope Co., George Skarich, Colorado Fuel & Iron Corporation, Alf Larsen, Vendsyssel Packing Company, Inc., and Phil LeDuc, Fibreboard Paper Products Corporation.

Handicap — Bob Ennis, North Pacific Seafoods, chairman; Jim Stephens, Oceanic Sales Co., and Walt Tobiason.

Membership—Randall Beard, New England Fish Co., chairman; Walter Johnson, Halibut Producers Co-Operative, and Bill Frankland, Kelley-Clarke Co.

Publicity—Carlton Hillyard, *Pacific Fisherman*, chairman; Don Venables, *Marine Digest*.

Other 1960 officers are Ken Williams, Dehn & Co., vice president; Paul Staley, Seattle Seafoods, secretary; and Jim Braymer, treasurer.

Starting time reservations for the spring tourney will not be accepted by the pro at Rainier until Tuesday morning, April 19.

Mrs. Betty Yancey, Jamieson Sea Food Co., Morro Bay, Calif., has installed a 150' dock, complete with Richfield marine service station. Mrs. Yancey is figuring on moving her abalone processing plant to the dock this year, also.

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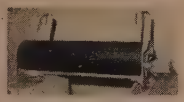

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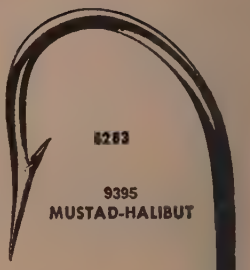

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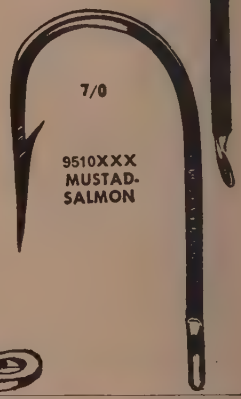

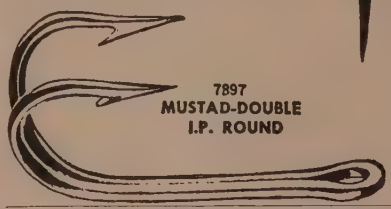

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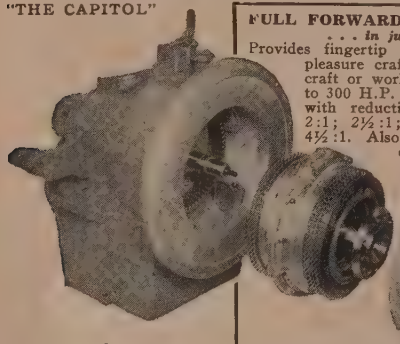

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LINES and LEADERS

Here are several of the new Chrysler Marine radio telephones and depth indicator equipment by Pearce-Simpson, recently added to the complete marine accessories line of N C Marine, Seattle. Ed Garberg, left, N C Marine service manager, describes the Chrysler "Carib" 132-watt unit to Luke Zankich, Chrysler sales manager for N C Marine.

Capitol Gears, Inc., New Name For Famous Line's Maker

Auto Engine Works, Inc., 331 North Hamline Ave., St. Paul, Minn., has announced the change of its corporate name to Capitol Gears, Inc. "The change was necessitated by the popularity of the trade name of our gears," said George P. Torgersen, executive vice-president," and due to the recognition and acceptance in the industry, Capitol Gears, Inc., will better identify the company as well as the products we manufacture."

Established more than 50 years ago, the firm began as a manufacturer of both automobile and marine engines and transmissions.

"Almost from the start," Torgersen stated, "the marine end of the business dominated both production and facilities. The company soon became recognized as marine gear specialists, and the manufacture of engines was discontinued in 1938."

In addition to a complete line of marine gears for engines from 85 to 500 hp. the company supplies foreign and domestic markets with commercial gear cutting of all kinds.

N C Marine Distributes Chrysler Electronic Instruments

N C Marine, Seattle, has been appointed Washington and Alaska distributor for the new Chrysler Marine line of radiotelephones, depth indicators and other marine accessories manufactured by Pearce-Simpson.

Available in six models, the new Chrysler radiotelephones are specifically designed and built for consistent marine service. All models are FCC type accepted and range from the 30-watt "Bimini" to the 132-watt "Pacific" and "Carib." There is a model for every type of boat from commercial to pleasure craft. Other Pearce-Simpson accessories now distributed by N C Marine include remote control units for the radio telephones, and completely transistorized Ultrasounder depth indicators.

With these additions, N C Marine now offers complete, one-stop sales and service on Chrysler Marine items ranging from engines to accessories, for the state of Washington north of the lower Columbia River counties, and all of Alaska. N C Marine, 2500 Westlake Avenue North, is a division of Northern Commercial Company, with dockside facilities on Lake Union in Seattle and other marine equipment branches at Port Angeles, Wash., Ketchikan and Juneau, Alaska.

All Onan Generators Bear "Performance Certified" Test Tag

D. W. Onan & Sons Inc., in March announced a new "Performance Certified" guarantee for all of its electric generating plants.

D. W. Onan & Sons Inc., electric power plants now carry a "Performance Certified" guarantee that backs up Onan's regular testing of all units it produces with retesting by an independent testing laboratory. Aim of the new testing procedure is to highlight the Onan guarantee that each of its electric generating plants will deliver its rated capacity or more.

The Minneapolis-headquartered leading builder of electric power plants has always test-run every plant before it is shipped.

"Now we are supporting our own testing," said C. W. Onan, president, "with experts from an independent testing laboratory. These independent test men have the right to pull any Onan plant off the line for checking."

The exclusive "Performance Certified" guarantee is in line with Onan's long-standing practice of always being sure the rated output of a generating unit will actually be met on the job.

As an example, Onan's own testing revealed a performance equivalent to 487,888 automobile miles (12,197 hours), with a total of 100 start-stops. After this gruelling test-run, the engine and its generating unit delivered the electrical output specified on its name plate.

All Onan electric power plants now will carry the following wording on the attached "Performance Certified" tag:

"We guarantee that when properly installed and operated this Onan electric plant will deliver the full power and the voltage and frequency regulation promised by its name plate and published specifications. This plant has undergone several hours of running-in and testing under realistic load conditions, in accordance with procedures certified by an independent testing laboratory."

CARRON'S "MOBY DICK"
NETTING
For Huge PROFITS—Bigger HAULS—
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For Seines—Trawls—Traps—Etc.
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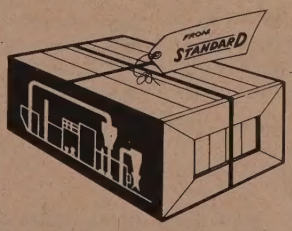

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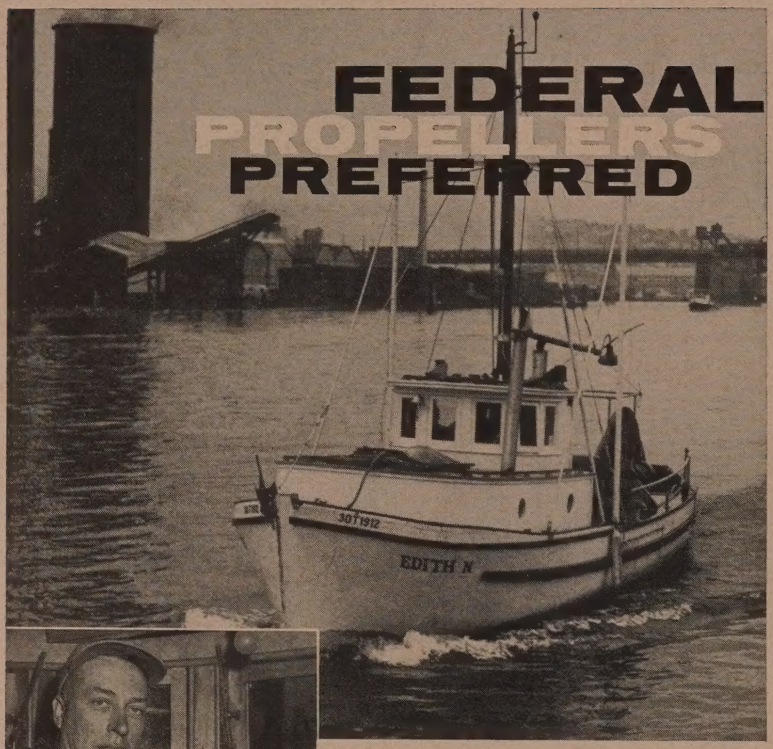
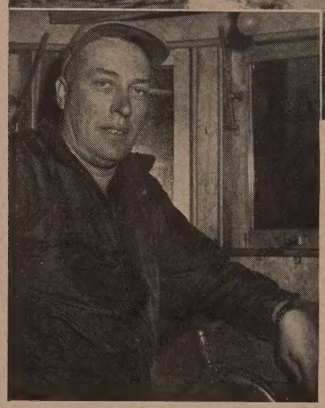


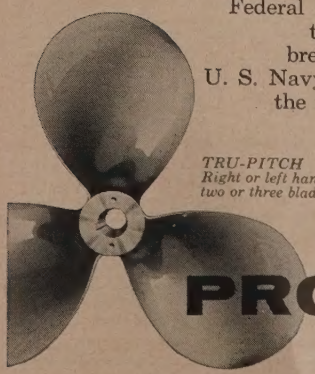
The "Edith N", Seattle, Washington, owned by Captain Don Newquist



FEDERAL PROPELLERS PREFERRED

. . . by MEN of EXPERIENCE

There must be a reason why Federal Propellers are overwhelmingly the favorites for commercial fishing boats. There must be reasons why "old timers" like Captain Don Newquist insist on Federal . . . Captain Newquist has been a fisherman for over 30 years, bringing in everything, including tuna and halibut. And when the "Edith N" was recently repowered he had it equipped with a 24″ x 18″ Federal Tru-Pitch Prop. What are the reasons? Perfect static balance and precision pitch make TRU-PITCH the world's finest all-purpose propeller . . . giving maximum efficiency and smoothness. And Federal "B" Alloy gives these props durability to withstand the severest impact without breaking . . . tensile strength far exceeding U. S. Navy requirements. Federal Propellers meet the most critical specifications of all . . . the demands of "men of experience"!



TRU-PITCH
Right or left hand, two or three blade.

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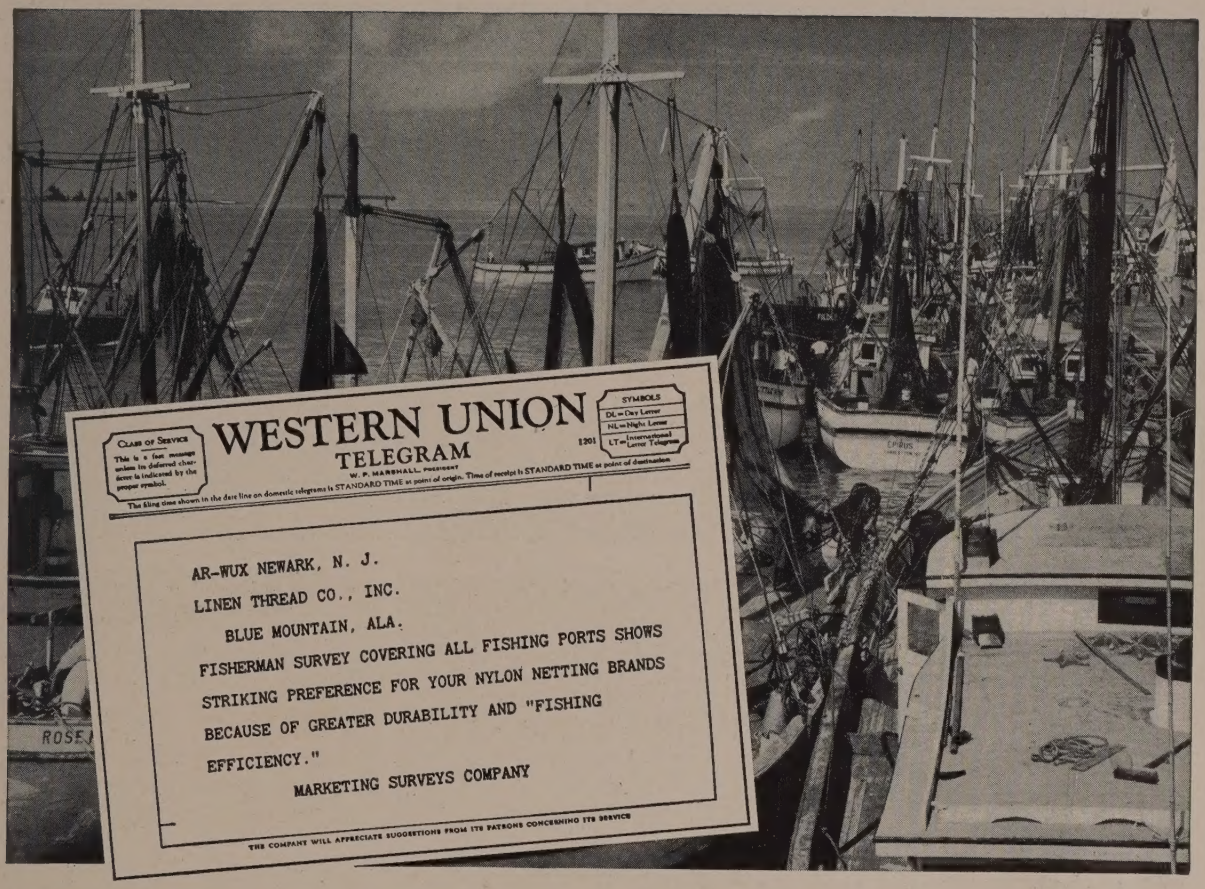
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Remember that there are *different* nylons . . . that there are big differences, too, in the way netting is made . . . and choose Linen Thread Brand Nylon Nettings, products of America's most experienced netting manufacturer. The value is greater, your profits are surer.

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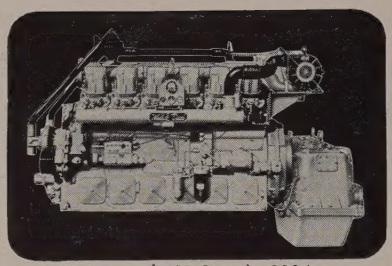
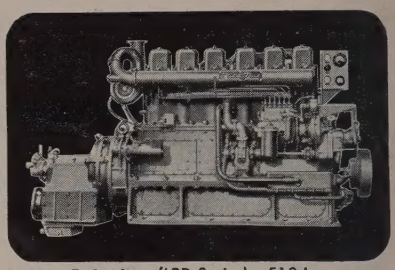
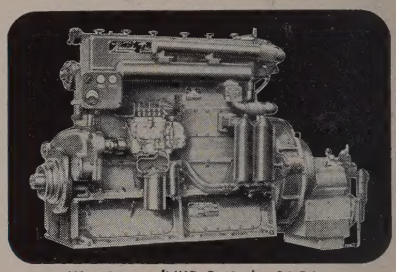


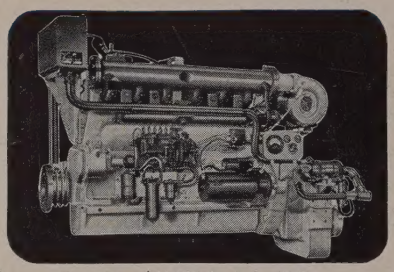
Reliance (VLRD Series) 990 hp



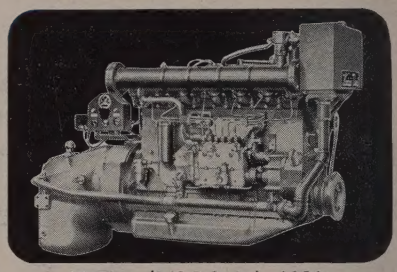
Defender (LRD Series) 510 hp



Wanderer (NKD Series) 315 hp



Resolute (WAKD Series) 290 hp



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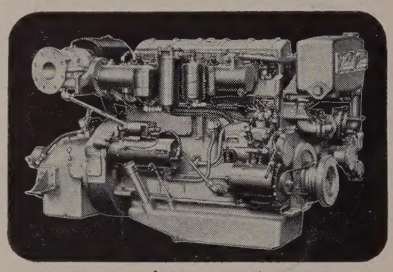
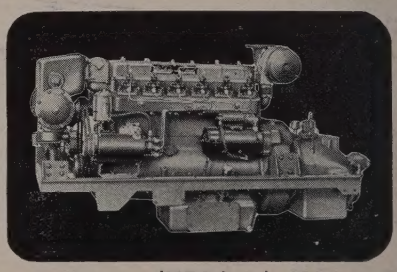


Cutwater (135-D Series) 120 hp



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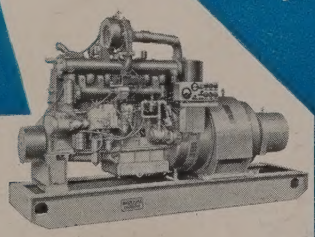

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RELIANCE	Normal	12	8½ x 8½	5788	725 hp @ 1215 rpm
	Turbo	12	8½ x 8½	5788	990 hp @ 1215 rpm
DEFENDER	Normal	6	8½ x 8½	2894	335 hp @ 1215 rpm
	Turbo	6	8½ x 8½	2894	510 hp @ 1215 rpm
WANDERER	Normal	6	7 x 8¼	1905	240 hp @ 1215 rpm
	Turbo	6	7 x 8¼	1905	315 hp @ 1215 rpm
RESOLUTE	Normal	6	6¼ x 6½	1197	195 hp @ 1600 rpm
	Turbo	6	6¼ x 6½	1197	290 hp @ 1600 rpm
VIGILANT	Normal	6	5¼ x 6	779	150 hp @ 1800 rpm
	Turbo	6	5¼ x 6	779	195 hp @ 1800 rpm
CUTWATER	Normal	6	4¼ x 5	426	100 hp @ 2000 rpm
	Turbo	6	4¼ x 5	426	120 hp @ 2000 rpm
NAVIGATOR	Normal	6	4 x 4	302	65 hp @ 2000 rpm
	Turbo	6	4 x 4	302	85 hp @ 2000 rpm

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